

## **APPENDIX F**

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Final Traffic Study

# **San Quentin State Prison Central Health Services Center**

## **Transportation Impact Analysis**

*Final Report*

Prepared for

**EDAW, Inc.**

and

**California Department of Corrections and Rehabilitation**

*By*

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## EXECUTIVE SUMMARY

This report provides an evaluation of traffic and transportation issues related to the proposed California Department of Corrections and Rehabilitation (CDCR) Central Health Services Center (CHSC) located within the secure perimeter of the existing San Quentin State Prison in Marin County. The proposed health center would consist of an 115,000 square foot (sf) facility, which would replace the existing "Building 22" within the State Prison. The new health care center would result in the need for approximately 75 new employees with up to 25 employees for each of the three primary work-shifts.

An operational analysis of the study intersections was conducted for the AM, midday, and PM peak hours during a typical weekday, and for the midday peak hour for a typical weekend. Using standard analysis methods, as prescribed by local and regional agencies, the addition of project related traffic would not result in any potentially significant intersection impacts during any peak hour. Two nearby unsignalized intersections currently operate at LOS F for the worst (Minor Street) approaches; however the addition of project related traffic would not result in any significant impacts. Similarly, the amount of peak hour project trips generated would not trigger any significant impacts on Marin County Congestion Management Program (CMP) roadway segments.

The proposed project is not anticipated to affect or impact the current transit operations or bicycle and pedestrian facilities.

During periods of construction, the proposed project would be developed at the same time as with the already approved Condemned Inmate Complex (CIC) project, and would result in approximately 20 daily truck trips, spread throughout the day. Employee parking during primary construction is anticipated to occur off site, and shuttles would transport employees to and from the project site. No significant construction impacts are anticipated.

Trips related to the currently approved Condemned Inmate Complex were included in the Cumulative and Cumulative plus Project scenarios. Similar to the Project scenario, the amount of peak hour and daily project trips generated would not trigger any significant impacts.

## **1.0 INTRODUCTION**

This report provides a general description of the transportation facilities in the project vicinity and summarizes existing and future conditions within the study area. The report analyzes the traffic conditions during the weekday AM, midday, PM, and weekend midday peak hours for study area intersections. Transit service, parking, bicycle and pedestrian facilities are also evaluated.

### **1.1 Data Collection**

The transportation analysis represented in this study follows review and incorporation of data that were collected in January, 2007. Information related to anticipated developments in the vicinity of the project site was obtained from various traffic studies, and is discussed in more detail in Section 4.0.

In addition, data provided in this section are based on recent correspondence and conversations with staff of the California Department of Corrections and Rehabilitation (CDCR), the City of Larkspur, and the City of San Rafael, and site visits conducted in March 2007.

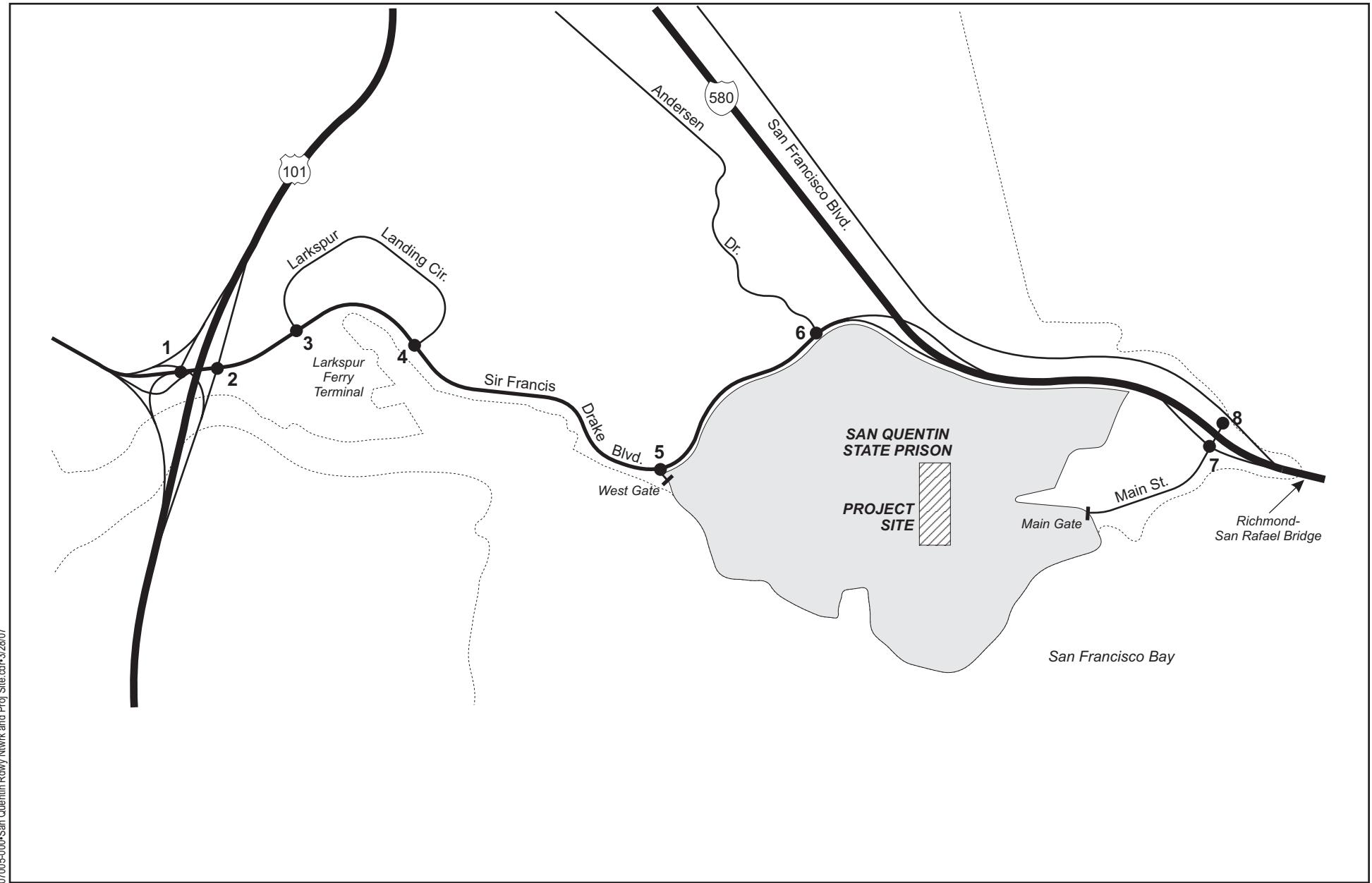
### **1.2 Existing Transportation System Conditions**

#### **Site Description**

The proposed project site is an expansion of the existing Health Care center located on the grounds of the existing San Quentin State Prison (SQSP) in Marin County. The project study area is bounded by Andersen Drive to the north, Main Street to the south, U.S. Highway 101 to the west and Interstate 580 to the east. Surrounding SQSP land uses include San Francisco Bay to the south, the ridgeline of San Quentin Peninsula to the north, the residential area of San Quentin Village to the east, and Remillard Park to the west. Additional land uses in the area include industrial uses along I-580 and Andersen Boulevard, the Central Marin Sanitation Agency Waste Water treatment plan, the Larkspur Landing Ferry Terminal and various commercial and residential uses in the vicinity of Larkspur Landing.

#### **Project Site Access**

Regional access to the project area is provided from Interstate 580 (I-580) via the Richmond-San Rafael Bridge, U.S. Highway 101 (US 101) and Sir Francis Drake Boulevard. **Figure 1** depicts the roadway network serving the project site. Permanent and construction access to the site would be via the West Gate Entrance off of Sir Francis Drake Boulevard.



Descriptions of regional and local roadways are provided below.

### **Regional Roadways**

**U.S. Highway 101 (U.S. 101)** - This facility extends from Los Angeles, in the south, to the Oregon state border, in the north. In the vicinity of the project, U.S. 101 runs in the north-south direction, and includes six mixed-flow lanes (three in each direction); one high occupancy vehicle lane is provided in the southbound direction, south of Sir Francis Drake Boulevard. U.S. 101 provides access to the project study area via an interchange with Sir Francis Drake Boulevard.

**Interstate 580 (I-580)** – This facility extends between the City of Tracy to the east, and at US 101 in Marin County in the west. I-580 intersects Interstate 5, Interstate 205, Interstate 80, and US 101. In the vicinity of the project, I-580 runs in the east-west direction, and includes four mixed-flow lanes (two in each direction). I-580 provides access to the project study area via on/off ramps at San Francisco Boulevard – Main Street and Sir Francis Drake Boulevard.

**Sir Francis Drake Boulevard** – This facility extends from the San Quentin Peninsula in the east, to its terminus at Shoreline Highway near the Point Reyes National Forest, in the west. In the vicinity of the project, Sir Francis Drake Boulevard is a two-lane undivided roadway (one lane in each direction) and has a posted speed limit of 45 mph. Within the City of Larkspur, Sir Francis Drake Boulevard is a four-lane (two-lanes in each direction) principal arterial with a posted speed limit of 40 mph.

U.S. 101, I-580 and Sir Francis Drake Boulevard are part of the Marin County Congestion Management Program (CMP) Network. The CMP network is a roadway system that includes both highway and roadways. The CMP is monitored annually to maintain levels of service and identified impacts. LOS standards have been established for all highway/roadway segments in the CMP:

- LOS E For freeways and rural expressways (US 101, I-580, and State Route 37)
- LOS D For urban and suburban arterials

### **Local Access**

Local access to the project study area is provided by Larkspur Landing Circle, Andersen Drive and Main Street. Direct access to the project site during the construction period would be provided via Sir Francis Drake Boulevard via the West Gate Entrance only. Direct access to SQSP is provided from Main Street at the East Gate Entrance. Descriptions of local access roads are provided below.

#### **Larkspur Landing Circle**

Larkspur Landing Circle is a two-lane loop road that intersects Sir Francis Drake Boulevard at two locations. It provides access to the Larkspur Landing Shopping Center. It has a posted speed limit of 25 mph. Access to the project site from Larkspur Landing Circle is provided via Sir Francis Drake Boulevard.

**Andersen Drive**

Andersen Drive runs in a north-south direction and consists of two-lanes (one in each direction) within the vicinity of the project site. It extends from Sir Francis Drake Boulevard in the south, to its terminus at 2<sup>nd</sup> street, to the north, in the City of San Rafael, where it becomes A Street. It has a posted speed limit of 25 mph.

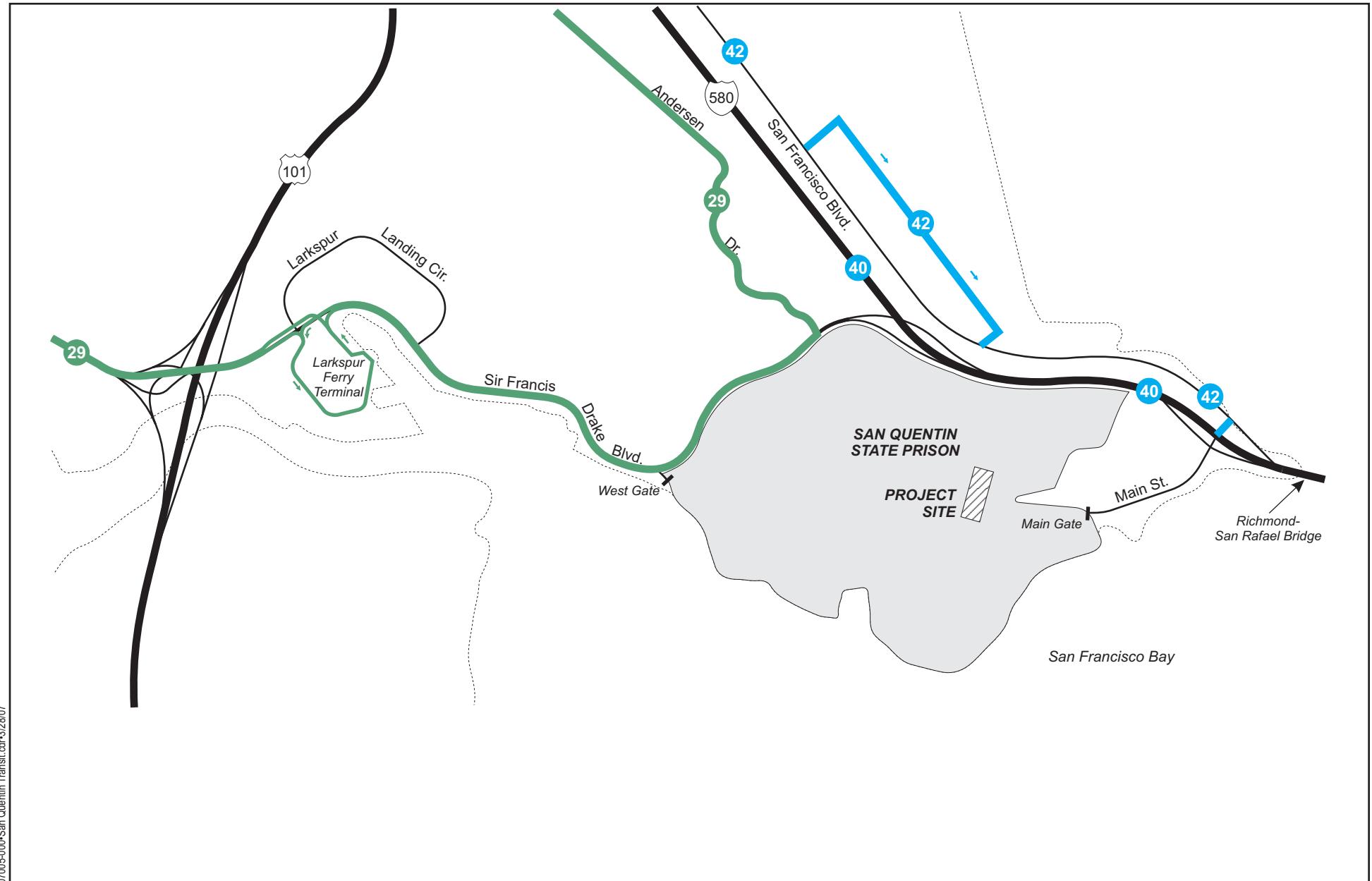
**Main Street**

Main Street is a two-lane minor roadway in the vicinity of the project. It extends from San Francisco Boulevard to the east, to the east gate entrance at San Quentin State Prison, in the west. Main Street can be accessed via the I-580 on/off ramps at the San Francisco Boulevard – Main Street exit. Main Street provides direct access to SQSP through San Quentin Village.

**Bus Transit & Paratransit Service**

Golden Gate Transit (GGT) provides regional daily bus (fixed-route) service in San Francisco, Marin and Sonoma Counties. Golden Gate Transit currently provides local daily bus (fixed-route) and paratransit services within the City of Larkspur via bus route 29. Bus route 29 serves the vicinity of the project site via Andersen Drive and Sir Francis Drake Boulevard. Route 29 travels along Sir Francis Drake Boulevard and operates on weekdays between 6:40 AM to 10:15 PM in the eastbound direction and from 7:20 AM to 11:00 PM in the westbound direction. Weekend (Saturday) service is provided from 7:15 AM to 10:15 PM in the eastbound direction, and from 7:55 AM to 10:55 PM in the westbound direction. No Sunday service is provided. The bus stop nearest to the project site is located at the intersection of Sir Francis Drake and the West Gate entrance to SQSP.

**Figure 2** illustrates the transit facilities within the project area.



Golden Gate Transit also provides inter-county paratransit service (door-to-door). Paratransit service is operated by Whistlestop Wheels during the same hours and days and in the same area as the basic fixed-route bus transit service.

### **Ferry Service**

Golden Gate Ferry currently provides daily ferry service between the cities of Larkspur and San Francisco. Ferry service from the Larkspur Ferry Terminal is provided between 6:00 AM and 8:15 PM on weekdays and from 9:40 AM to 5:40 PM on weekends and holidays.

Short term and long term parking are provided at the Larkspur terminal. Ferry riders can park free of charge during the first 24-hours. The Larkspur Ferry Terminal also has two electric vehicle charging stations.

### **Airport Service**

Marin Airporter provides daily airport service to San Francisco International Airport. Service is provided from 4:00 AM to 11:00 PM every 30 minutes on the hour and half-hour. The airport bus departs from the Larkspur Ferry Terminal.

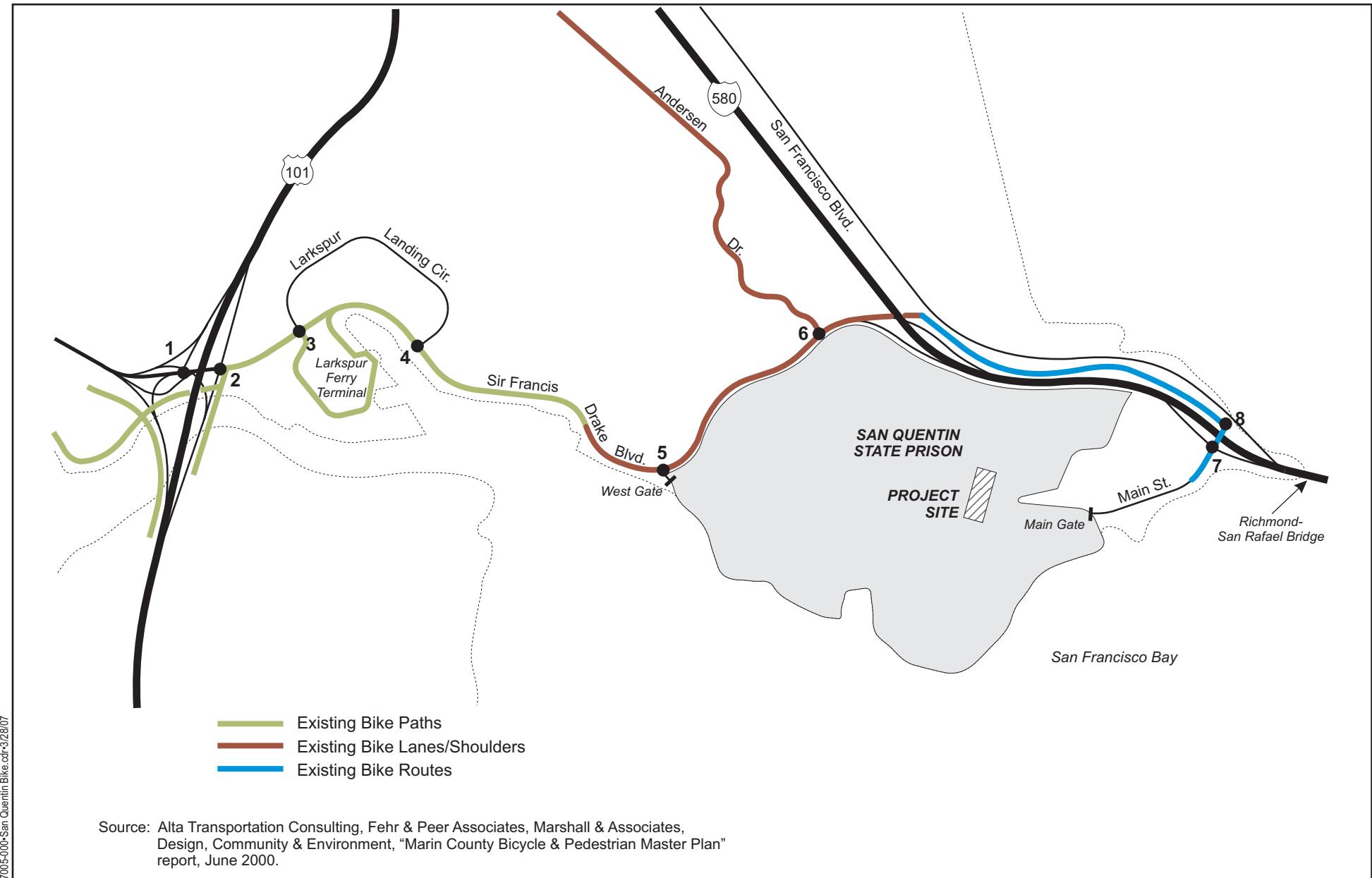
### **Bicycle and Pedestrian Circulation**

The 2000 Marin County Bicycle and Pedestrian Master Plan identifies the pedestrian and bicycle facilities in the vicinity of SQSP. The existing bicycle system consists of three classifications of bicycle facilities:

- **Class I facilities (bike path)** – are paved facilities that are physically separated from roadways used by motor vehicles by space or a physical barrier and are designated for exclusive bicycle and pedestrian use.
- **Class II facilities (bike lane)** – are lanes on the outside edge of roadways reserved for the exclusive use of bicycles, and designated with special signing and pavement markings.
- **Class III facilities (bike route)** – are roadways recommended for use by bicycles and often connect roadways with bike lanes and bike paths. Bike routes are designated with signs.

The existing bicycle facilities map, as illustrated in the Marin County Bicycle and Pedestrian Master Plan, identifies Sir Francis Drake Boulevard as a major bicycle facility in the vicinity of the project site. Within the vicinity of SQSP, Sir Francis Drake Boulevard provides bike paths, bike lanes and a segment of the road is a designated bike route. Based on field observations, Andersen Drive provides bike lanes on both sides of the street.

**Figure 3** illustrates the location of bicycle facilities in the vicinity of the project.



**Figure 3**  
**Bicycle Facilities**

Pedestrian facilities within the vicinity of the site include sidewalks, crosswalks and pedestrian signals. Crosswalks, sidewalks and pedestrian signals are provided at the Larkspur Landing Circle east and west intersections with Sir Francis Drake Boulevard.

### **Parking**

According to a parking utilization survey conducted by DKS Associates as part of the CIC Draft EIR (EDAW/DKS Associates, September 2004), parking at SQSP via the East Gate Entrance consists of approximately 623 spaces and includes the following: Main employee parking lot (383 spaces), visitor parking lot (82 spaces), overflow parking lot (91 spaces), Maintenance/Emergency vehicles (10 spaces) and 57 spaces assigned for staff and personnel (includes handicap spaces).

Additionally, SQSP provides an estimated 218 spaces via the West Gate entrance designated for state vehicles (135 spaces), recreational vehicles (42 spaces) and H-Unit (41 spaces). Parking is also provided for the employee residences on SQSP property.

On-street parking is permitted along Sir Francis Drake Boulevard immediately adjacent to the West Gate entrance, and was observed with few vehicles during typical weekday and weekend conditions. However, this area can become heavily used by recreationalists who windsurf along the bay front during appropriate weather conditions.

## 2.0 LEVEL OF SERVICE METHODOLOGY

To evaluate the existing traffic conditions, as well as provide a basis for comparison of conditions before and after project-generated traffic is added to the street system, the Level of Service (LOS) was evaluated at key local intersections, which were selected in consultation with City of Larkspur and City of San Rafael staff. The LOS evaluation indicates the degree of congestion that occurs during peak travel periods and is the principal measure of intersection performance.

### 2.1 Analysis Methodology

This analysis is consistent with the procedures from the 2000 Larkspur Landing Circle Traffic and Parking Report (Dowling Associates, Inc. November 20, 2003), and represents the City's preferred methodology for intersection level of service analysis. Based on direction from the City of Larkspur's representative traffic engineer (Robert L. Harrison, consultant engineer) during the CIC EIR process, the City of Larkspur's preferred method is the 1994 Highway Capacity Manual operations method for signalized intersections, and the 2000 Highway Capacity Manual for unsignalized intersections. A Peak Hour Factor (PHF)<sup>1</sup> was applied to each of the analyzed intersections for the 15 minutes of peak traffic of the AM, midday, PM and weekend midday peak hour period. The PHF was applied for the Existing, Background, Project, Cumulative (No Project) and Cumulative plus Project scenarios.

The City of San Rafael designated intersection level of service analysis methodology is the 2000 Highway Capacity Manual (HCM) operations methods for unsignalized intersections<sup>2</sup>; there are no signalized intersections in San Rafael in this analysis.

### 2.2 Level of Service Definition

Level of service (LOS) is a common measure of traffic service that uses letters A through F (least to most traffic congestion, respectively) to indicate the amount of congestion and delay. The LOS concept was developed to correlate numerical traffic volumes to subjective descriptions of traffic performance at intersections, which are the controlling bottlenecks of traffic flow. LOS A indicates free flow conditions, while LOS B and C signify stable conditions with acceptable delays. LOS D is typically considered acceptable for peak hours in urban areas. LOS E is approaching capacity and LOS F represents conditions at or above capacity.

<sup>1</sup> The PHF is the hourly volume during the maximum-volume hour of the day divided by the 15-minute flow rate within the peak hour. It is a measure of traffic demand fluctuation within the peak hour. Source: Highway Capacity Manual – Chapter 5, Transportation Research Board, National Research Council. 2000.

<sup>2</sup> San Rafael General Plan 2020 Draft EIR. Transportation and Circulation Chapter, Highway Capacity Manual, Transportation Research Board, National Research Council, 2000.

## 2.3 Signalized Intersections

**Table 1** defines the levels of service for signalized intersections. Traffic conditions at signalized intersections in Larkspur have been evaluated for weekday AM, midday, PM, and weekend midday peak hours using the capacity analysis procedures from the Highway Capacity Manual 1994 Operations Method<sup>3</sup>.

LOS methodology qualitatively characterizes traffic conditions associated with varying levels of traffic. A LOS determination is a measure of vehicle delay (seconds/vehicle) at an intersection. The AM peak hour generally occurs between 7:00 AM and 9:00 AM and the PM peak hour occurs between 4:00 PM and 6:00 PM Impacts to intersections may occur outside of the typical peak hour.

For example, occasional midday surges of traffic correlating with shift changes may result in temporary congestion. Therefore, for the purposes of this study, the weekday AM, midday, PM and weekend midday peak hours have been analyzed, as this is when adjacent street and regional roadway traffic volumes are at their highest levels, and overlap with prison shift changes and visiting hours.

**Table 1      Signalized Intersection LOS Definitions**

Level Of Service	Avg. Delay (sec/veh)	Description
A	$\leq 5.0$	Free flow; insignificant delays.
B	5.1 – 15.0	Stable flow, but speeds are beginning to be restricted by traffic condition; slight delays.
C	15.1 – 25.0	Stable flow, but most drivers cannot select their own speeds and feel somewhat restricted; acceptable delays.
D	25.1 – 40.0	Approaching unstable flow, and drivers have difficulty maneuvering; tolerable delays.
E	40.1 – 60.0	Unstable flow with stop and go; delays
F	$\geq 60.0$	Total breakdown; congested conditions with excessive delays.

Source: City of Larkspur General Plan. Chapter 4 - Circulation.

<sup>3</sup> 2000 Larkspur Landing Circle Traffic and Parking Report. Dowling Associates, Inc. November 20, 2003.

## 2.4 Unsignalized/All-Way Stop Controlled Intersections

Traffic LOS for unsignalized intersections in Larkspur and San Rafael were calculated using the 2000 Highway Capacity Manual (Transportation Research Board, Special Report 209) methodology, the designated method in both the City of Larkspur and City of San Rafael. At unsignalized intersections each approach to the intersection is evaluated separately and assigned a LOS. The LOS is based on average total delay at the intersection, in seconds per vehicle. **Table 2** provides definitions of LOS for two-way and/or all-way stop controlled intersections.

Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

**Table 2      Unsignalized Intersection LOS Definition**

Level of Service	Average Total Delay (seconds per vehicle)	Description
A	$\leq 10$	Little or no delay
B	$> 10 \text{ and } \leq 15$	Short traffic delay
C	$> 15 \text{ and } \leq 25$	Average traffic delay
D	$> 25 \text{ and } \leq 35$	Long traffic delay
E	$> 35 \text{ and } \leq 50$	Very long traffic delay
F	$> 50$	Extreme delays potentially affecting other traffic movements in the intersection.

Source: Highway Capacity Manual, Transportation Research Board, 2000

## 2.5 Standards of Significance

Based on the City of Larkspur level of service standards, an acceptable level is defined as LOS D or better at all signalized intersections and LOS C or better at all unsignalized intersections, during the AM and PM peak hours.

Based on the City of San Rafael level of service standards, an acceptable level is defined as LOS D or better at all arterial street intersections and at highway interchange intersections. An LOS C is acceptable for local residential streets and intersections and LOS in Mid-D for conditions outside the Downtown Core Area. The LOS standards only apply to the PM peak hour.

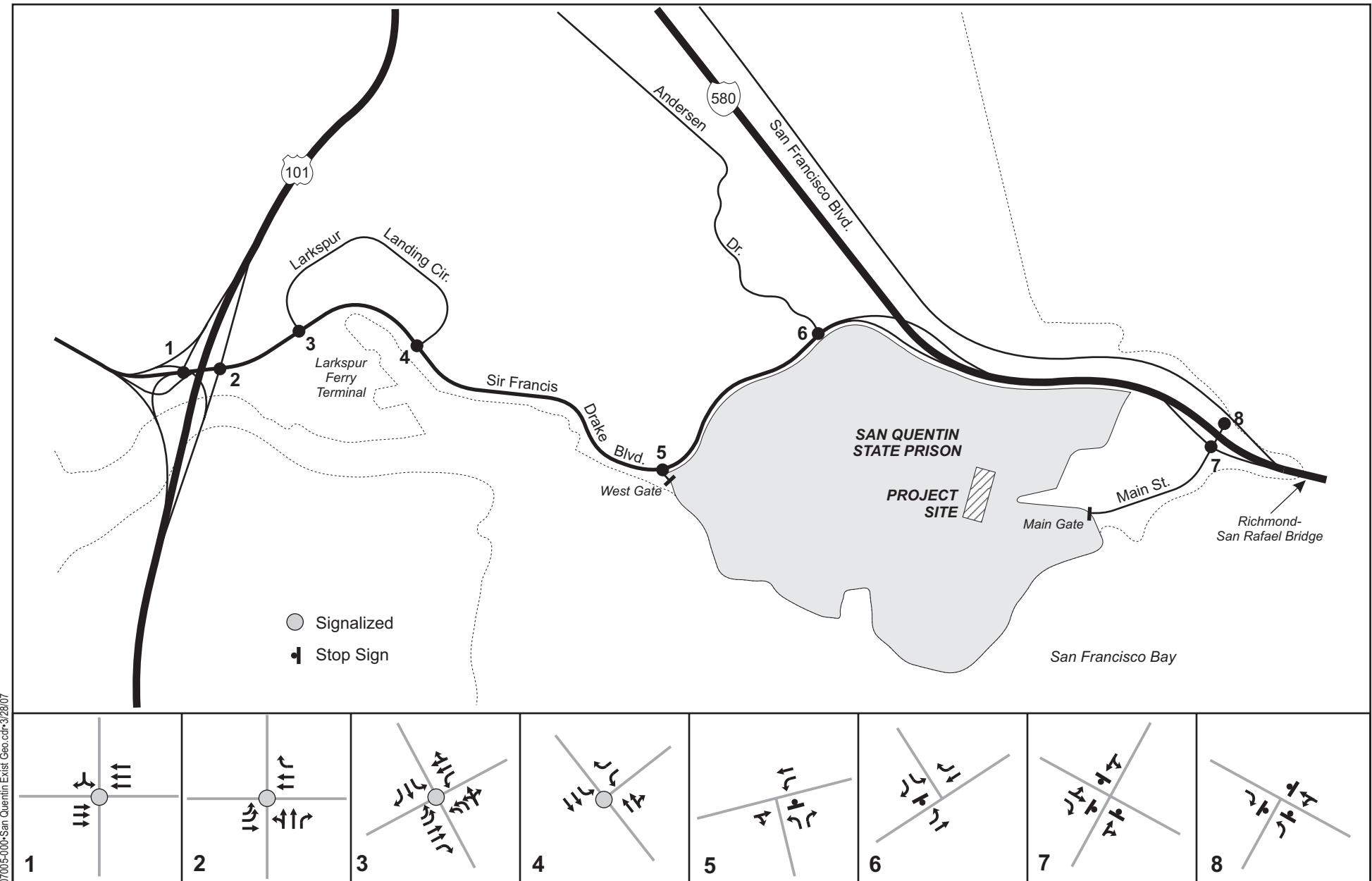
### 3.0 EXISTING CONDITIONS

Based on consultation with City of Larkspur and City of San Rafael staff, the following intersections were selected for analysis, as they are the most likely to be potentially affected by the proposed project.

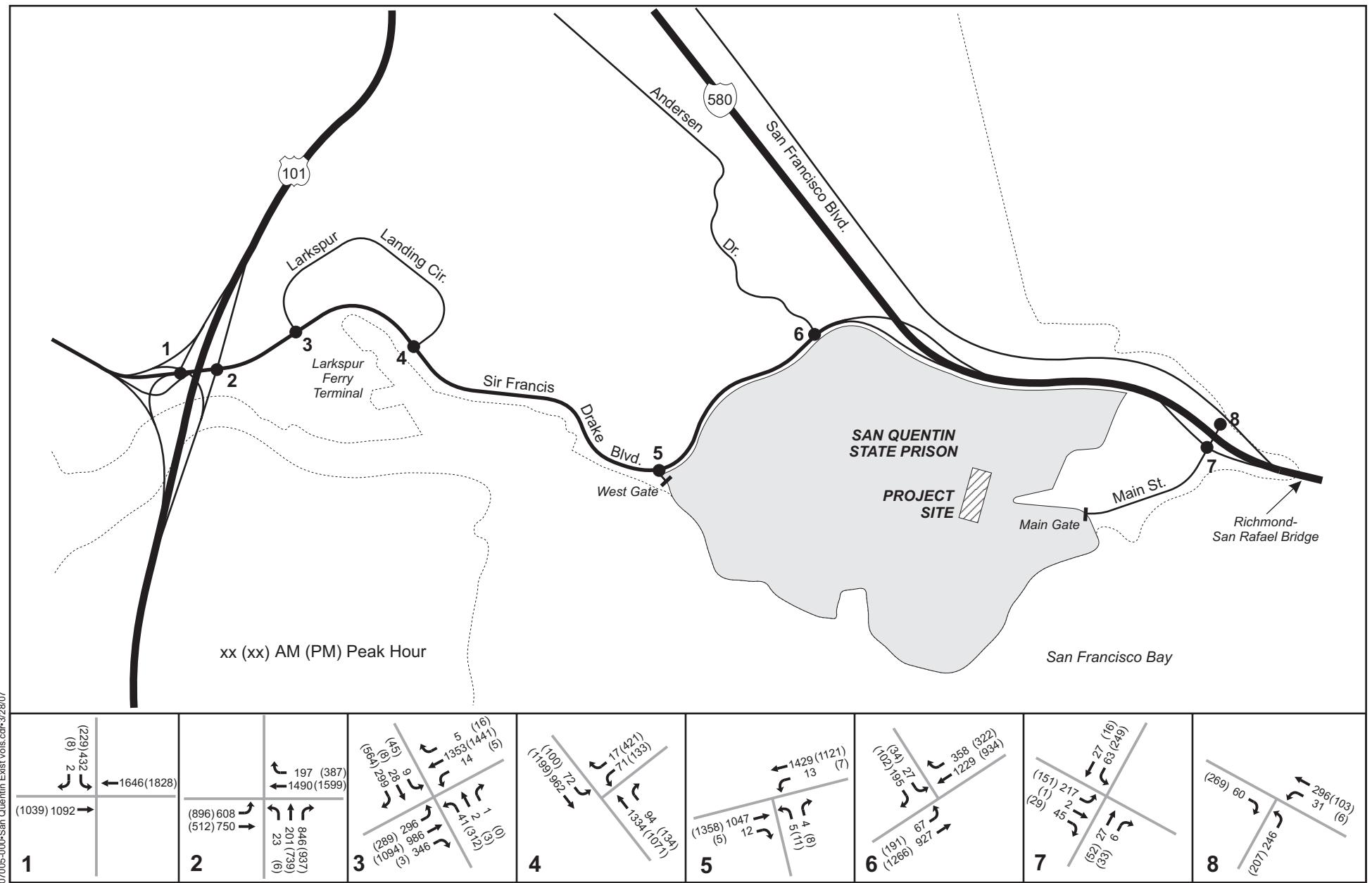
1. U.S. 101 southbound off-ramp & Sir Francis Drake Boulevard
2. U.S. 101 northbound on/off ramp & Sir Francis Drake Boulevard
3. Larkspur Landing Circle (West) & Sir Francis Drake Boulevard
4. Larkspur Landing Circle (East) & Sir Francis Drake Boulevard
5. West Gate Entrance & Sir Francis Drake Boulevard
6. Andersen Drive & Sir Francis Drake Boulevard
7. Main Street & I-580 eastbound on/off ramp
8. Main Street & I-580 westbound off-ramp

Vehicle turning movement counts were conducted in January 2007. Counts were conducted during the weekday AM period of 5:30-9:00 AM, the midday period of 1:30-3:30 PM, (to coincide with the SQSP midday shift change) the PM peak hour period of 4:00-6:00 PM, and during the weekend midday peak period of 1:30-3:30 PM

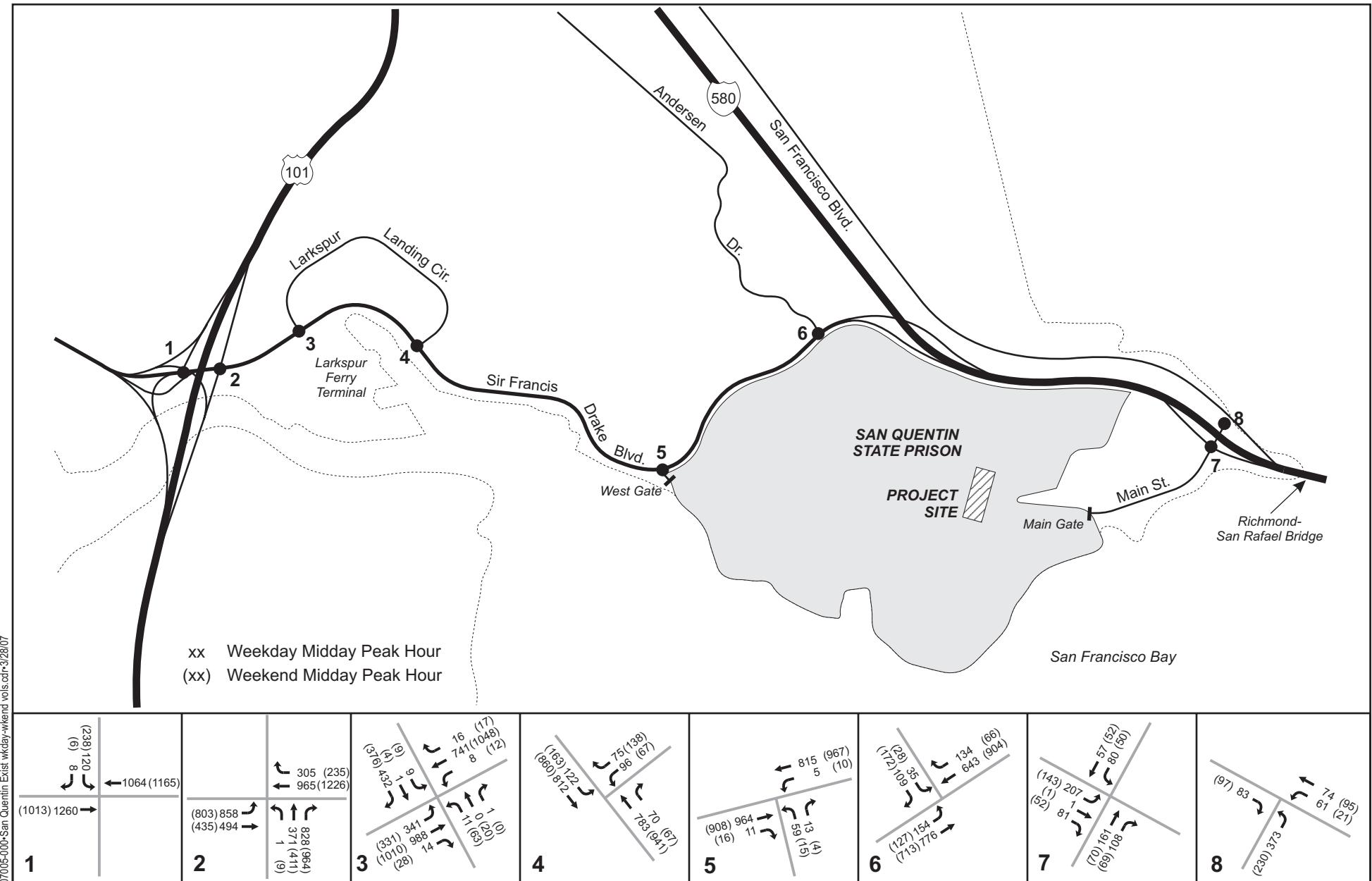
**Figure 4** illustrates the existing lane configuration and traffic control of each of the study intersections. **Figure 5** illustrates the existing AM and PM peak hour volumes. **Figure 6** illustrates the existing weekday midday and weekend midday peak hour volumes. **Table 3** provides a summary of the existing intersection service levels for each of the peak periods analyzed.



**Figure 4**  
**Existing Intersection Geometry  
and Traffic Control**



**Figure 5**  
**Existing AM and PM  
Peak Hour Traffic Volumes**



**DKS Associates**  
TRANSPORTATION SOLUTIONS

**Figure 6**  
**Existing Weekday and Weekend Midday Peak Hour Traffic Volumes**

**Table 3      Intersection Operating Conditions - Existing Conditions**

#	Intersection	weekday						weekend	
		AM peak		midday		PM		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>						
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	13.9	B	5.2	B	7.6	B	10.1	B
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	19.7	C	55.9	E	21.0	C
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	15.5	C	18.6	C	32.8	D	18.7	C
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.1	B	9.8	B	17.3	C	11.8	B
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	>50	F	>50	F
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	>50	F
7	<i>Main Street &amp; I-580 EB on/off ramp<sup>4</sup></i>	9.9	A	10.5	B	10.5	B	9.2	A
8	<i>Main Street &amp; I-580 WB off-ramp<sup>4</sup></i>	11.1	B	11.3	B	9.2	A	9.9	A

Notes: Intersections 1-4 are signalized; Intersections 5-8 are unsignalized for the Existing Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

### 3.1 Existing Intersection Operation

According to the City of Larkspur intersection LOS standards, all study intersections in the City of Larkspur currently operate at an acceptable LOS for the existing conditions, with the exception of the San Quentin West Gate and Sir Francis Drake Boulevard intersection. This intersection currently operates at LOS F during the weekday AM, midday, PM, and weekend midday peak hours.

It should be noted that this intersection operates with slight delays, but the northbound left-turning vehicles exiting SQSP via the West Gate (minor-street) have difficulty finding enough gaps in the through traffic on the major street (Sir Francis Drake Blvd), resulting in an "F" grade.

According to the City of San Rafael intersection LOS standards, all study intersections in the City of San Rafael currently operate at an acceptable LOS for the existing conditions, with the exception of Andersen Drive and Sir Francis Drake Boulevard. This intersection currently operates at LOS F during the weekday AM, midday, PM, and weekend midday peak hours.

Similar to the Sir Francis Drake Boulevard and the West Gate entrance intersection, the Andersen Drive and Sir Francis Drake Boulevard intersection operates with slight delays, but

the southbound left-turning vehicles from Andersen Drive turning left onto Sir Francis Drake Boulevard to access the I-580 eastbound ramps have difficulty finding enough gaps in the through traffic on the major street (Sir Francis Drake Blvd), resulting in an "F" grade.

**Appendix A** includes the detailed calculation sheets for the existing conditions including each analysis period.

## 4.0 BACKGROUND CONDITIONS

This section describes the traffic operating conditions at the study intersections under the Background scenario. The Background scenario includes anticipated traffic generated by approved projects, and projects under construction that are anticipated to open prior to completion of the proposed project (2010). Vehicular traffic that would be generated by approved and planned projects in the neighboring area was added to the existing condition turning movement volumes at the study intersections in order to evaluate the overall Background scenario.

Based on consultation with City of Larkspur, City of San Rafael, and Marin County staff, the following projects were considered in the Background scenario:

- 2000 Larkspur Landing Circle
- Monahan Pacific Project (Larkspur Landing Parcels 19 and 21)
- Target Shopping Center (San Rafael)
- Extended Stay Hotel (San Rafael)
- 2350 Kerner Office Buildings (San Rafael)

Vehicular traffic that would be generated by approved projects in the neighboring area was added to the existing condition intersection turning movement volumes at the study intersections for the AM and PM peak hours in order to evaluate the overall Background scenario. It should be noted that the SQSP CIC project is an approved project; however approved trips for this project are not included in the Background scenario because funding is currently being secured by CDCR. Trips related to the CIC project are included in the Cumulative scenario analysis (Section 6).

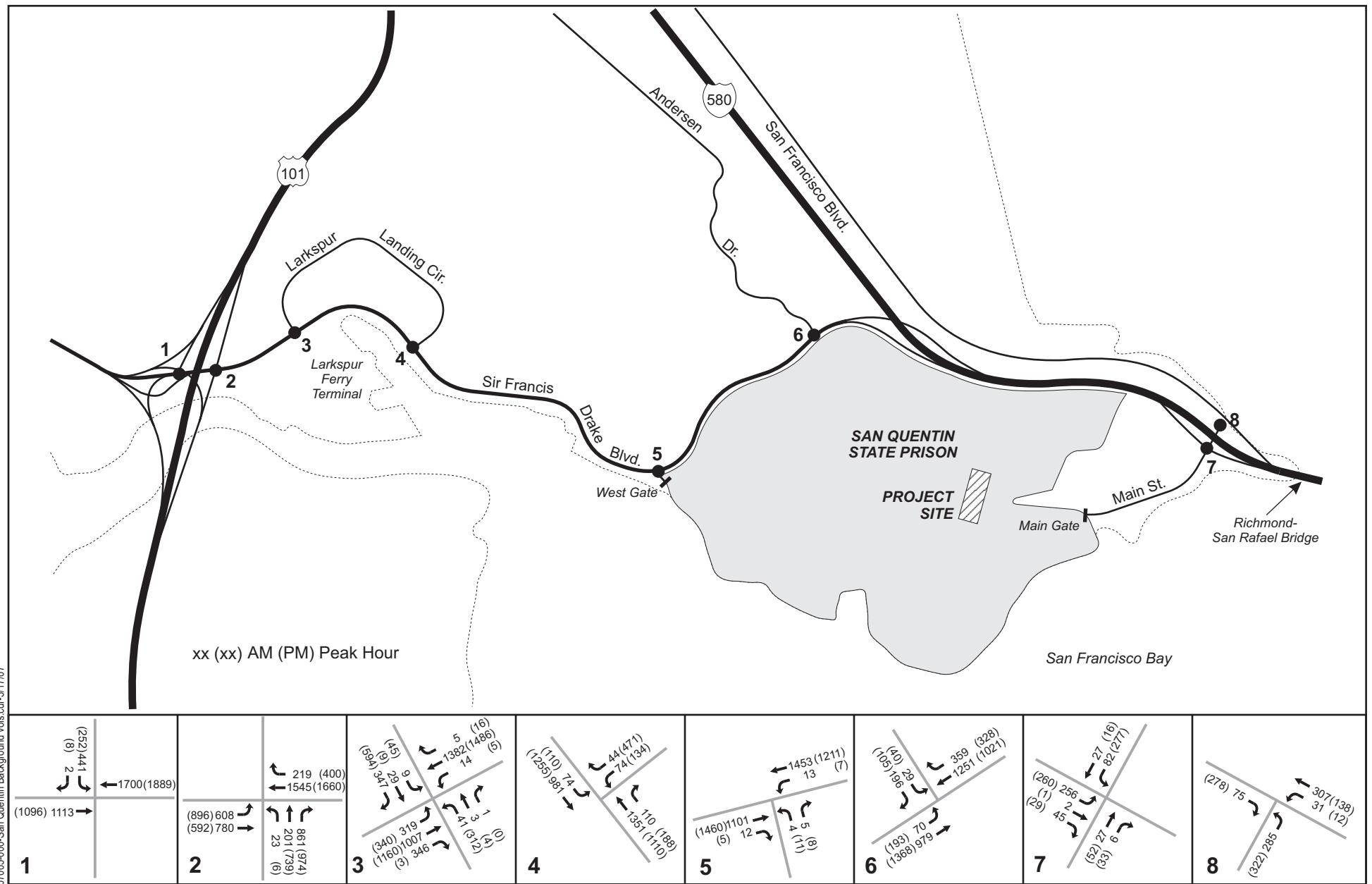
### 4.1 Intersection Analysis Methodology

In general, intersection lane geometry and traffic control are anticipated to be the same, with the exception of the intersection of Eastbound I-580 Ramps and Main Street (East Gate). This intersection was assumed to be signalized under the Background Scenario since funding for a traffic signal is approved, and improvements are currently in the design phase and would be completed prior to 2010.

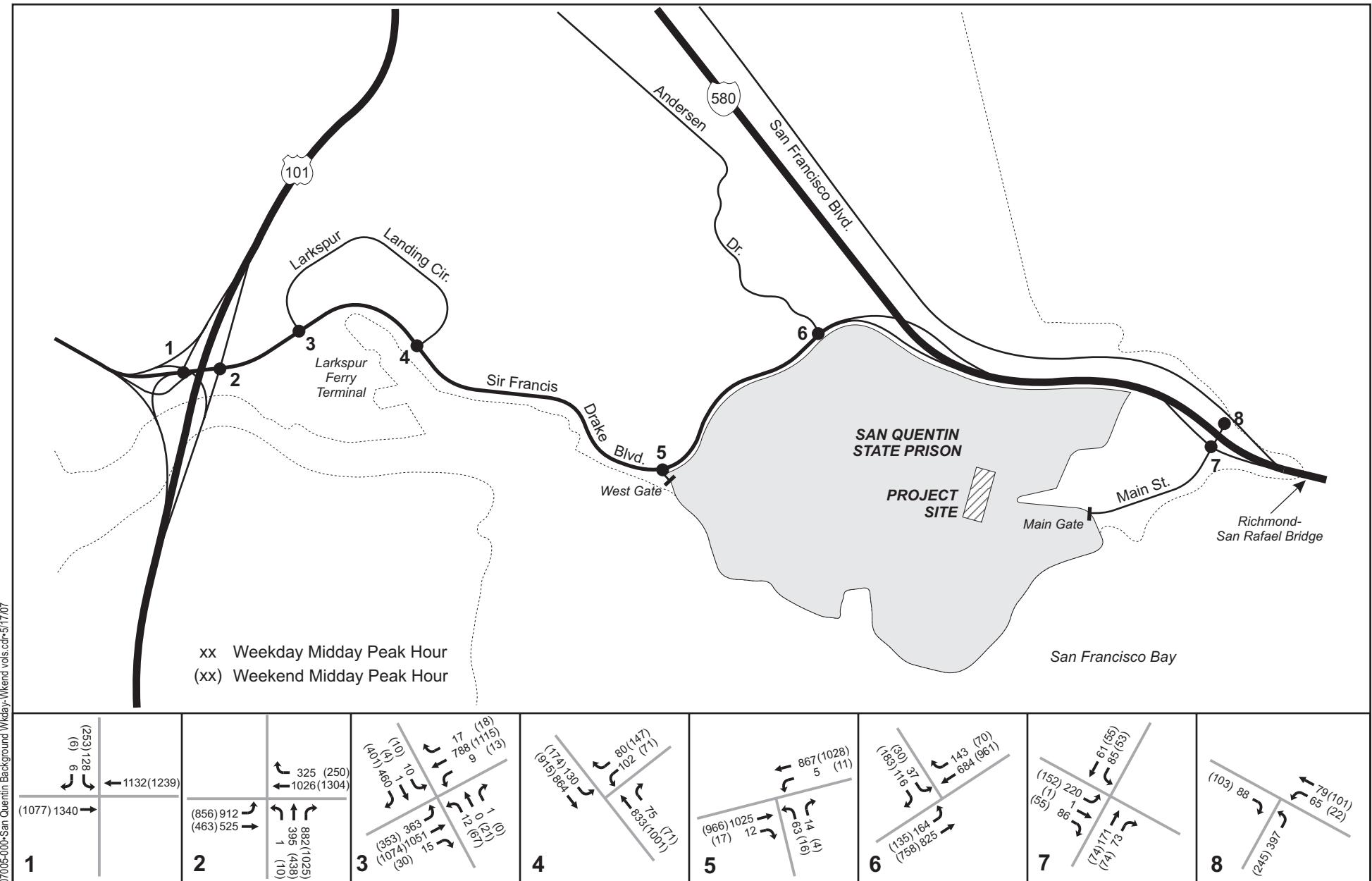
Background intersection volumes for the weekday midday and weekend midday peak hour were derived based on the projected growth from the existing PM peak hour scenario to the Background PM scenario intersection volumes. The overall percentage increase was applied to the existing weekday midday and weekend midday peak hour intersection total volume to determine the Background scenario intersection volumes.

**Figure 7** illustrates the Background scenario weekday AM and PM peak hour volumes. **Figure 8** illustrates the Background scenario weekday midday and weekend midday peak hour volumes.

**Table 4** provides a summary of the Background scenario intersection LOS for each of the peak periods analyzed.



**Figure 7**  
**Background Scenario**  
**AM and PM Peak Hour Traffic Volumes**



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**Figure 8**  
**Background Scenario**  
**Weekday and Weekend Midday Traffic Volumes**

**Table 4      Intersection LOS Analysis - Background Scenario**

#	Intersection	weekday						weekend	
		AM peak		midday		PM		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>						
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	14.0	B	5.3	B	8.2	B	10.3	B
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	20.6	C	61.5	F	22.3	C
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	16.8	C	19.2	C	40.8	E	19.4	C
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.5	B	10.0	B	18.8	C	11.9	B
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	>50	F
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	>50	F
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	5.8	B	6.8	B	7.7	B	6.6	B
8	<i>Main Street &amp; I-580 WB off-ramp<sup>4</sup></i>	11.9	B	11.9	B	11.2	B	10.3	B

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Background Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

## 4.2 Background Intersection Operation

According to the City of Larkspur intersection LOS standards, all study intersections would continue to operate at an acceptable LOS for the Background conditions, with the exception of the San Quentin West Gate and Sir Francis Drake Boulevard intersection. This intersection would continue to operate at LOS F during the weekday AM, midday, PM, and weekend midday peak hours, due to the difficulty motorists will face making a left turn out of SQSP at the West Gate onto Sir Francis Drake Boulevard.

In the City of San Rafael, similar to the existing conditions, the Andersen Drive and Sir Francis Drake Boulevard intersection would continue to operate at LOS F during the weekday AM, midday, PM and weekend midday peak hours, due to delays faced by motorists making a left turn from Andersen Drive towards the I-580 eastbound on-ramp.

**Appendix B** includes the detailed calculation sheets for the Background scenario including each analysis period.

## 5.0 PROJECT CONDITIONS

This section evaluates background traffic conditions plus project-generated traffic estimated for the proposed project. The amount of traffic associated with a project is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. Trip generation is the process of predicting the number of peak hour trips the proposed project would contribute to the roadways, and whether these trips would be entering or exiting the site. After the number of trips is determined, the distribution process projects the direction these trips use to approach and depart the site, from a regional perspective. Trip assignment involves determining which specific roadways a vehicle would use to travel between its origin and destination.

### 5.1 Significance Criteria and Project Impacts

The following significance criteria represent those that are applicable to this project.

According to the California Environmental Quality Act (CEQA) Guidelines, the standards of significance for traffic impacts for a project are:

- If the project traffic will cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.
- If the project traffic will exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- If the project will result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- If the project will substantially increase hazards due to a design feature or incompatible uses.
- If the project would result in inadequate emergency access and parking capacity.
- If the project would conflict with adopted policies, plans or programs supporting alternative transportation.

Level of Service Standards for study intersections are outlined in the 1990 Larkspur General Plan (Chapter 4), and the applicable language to define traffic impacts as significant are:

- The addition of project traffic, when added to the existing traffic plus projected traffic, will cause the performance of intersections to fall below acceptable level of service standards, or otherwise significantly further reduce the system performance if it is already below the acceptable level of service, or will it cause a significant degradation in service levels for impacted intersections at their peak traffic periods.

- The addition of the project's peak hour traffic causes an increase of traffic volumes on any roadway segment or intersection approach by more than ten vehicles or one percent of the existing volume, whichever is less.

The City of San Rafael General Plan 2020 outlines the LOS Standards within the City of San Rafael. The applicable language to define traffic impacts as significant are:

- An unsignalized intersection with baseline traffic volumes is operating at an acceptable LOS (LOS A, B, C, D, or E) and deteriorates to an unacceptable operation (LOS F)
- An unsignalized intersection with baseline traffic volumes is already operating at LOS F and there is an increase in the average vehicle delay of five seconds or more.

## 5.2 Project Description

San Quentin State Prison houses approximately 5,809 total inmates; approximately 1,612 employees are employed at the prison, including 529 administrative staff (8:00 AM – 5:00 PM). Of the 1,493 employees about 138 employees are assigned to the first watch (night shift) from 10:00 PM to 6:00 AM; 536 employees are assigned the second watch (day shift) from 6:00 AM to 2:00 PM; the third watch (swing shift) is from 2:00 PM to 10:00 PM and is staffed by 290 employees.

The proposed CHSC would add up to 75 permanent employees or about 25 employees during each of the three standard shifts during both weekdays and weekends.

**Table 5** provides a summary of the estimated staffing by work shift and day of the week.

**Table 5      Estimated Staffing**

Work Shift	Time	EXISTING	PROJECTED NEW STAFF	
			Weekday	Weekend
First Watch	10:00 PM – 6:00 AM	138	25	25
Second Watch	6:00 AM – 2:00 PM	536	25	25
Third Watch	2:00 PM – 10:00 PM	290	25	25
<b>TOTAL CUSTODY STAFF</b>		<b>964</b>	<b>75</b>	
<b>ADMINISTRATIVE AND ANCILLARY STAFF</b>		<b>529</b>	<b>0</b>	
<b>GRAND TOTAL NEW STAFF</b>			<b>75</b>	

Source: California Department of Corrections. Estimated Daily Complex Staffing, 8 buildings Fully Condemned Correctional Treatment Center.

### 5.3 Trip Generation

Trip generation for the proposed project was based on an estimate of trip generation rates based on a survey conducted as part of the SQSP CIC EIR in 2004. As part of that analysis, a 24-hour traffic count and parking survey at the project site entrance was conducted by DKS Associates, and the trip generation rates are based on that survey. The survey collected data related to entering and exiting vehicles at the east gate on a typical day that included visitations. A vehicle trip rate was calculated using employees as the independent variable, as this is a known quantity for existing and future conditions at the facility. The trip rate includes all trip purposes, including employees and visitors, as the trip survey did not distinguish between trip purposes.

The trip rate was calculated for the weekday AM, midday, PM and the weekend midday periods. The number of additional employees during each of these time periods was multiplied by the trip rate for that time period to calculate the number of additional trips. Inbound and outbound percentages were determined from the 24-hour traffic counts and parking survey. The estimated trip generation rates and estimated number of trips generated by the proposed project is summarized in Table 6 for the weekday AM peak, midday peak, PM peak and weekend midday peak hours, respectively.

**Table 6 Project Trip Generation**

Units	WEEKDAY												WEEKEND											
	AM PEAK				MIDDAY PEAK				PM PEAK				MIDDAY PEAK											
	Size	Rate <sup>1</sup>	%	Trips	Size	Rate <sup>1</sup>	%	Trips	Size	Rate <sup>1</sup>	%	Trips	Size	Rate <sup>1</sup>	%	Trips								
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out								
Employees <sup>2</sup>	25	0.11	70	30	1.9	0.8	25	1.17	23	77	6.7	22.5	25	0.18	25	75	1.1	3.4	25	1.06	39	61	10.3	16.2
Total Trips					<b>2</b>	<b>1</b>			<b>7</b>	<b>23</b>			<b>1</b>	<b>3</b>					<b>10</b>	<b>16</b>				

<sup>1</sup> Rate: trips per employee.

<sup>2</sup> Net additional employees.

Source: Trip Generation Rates - San Quentin Condemned Inmate Complex Draft EIR, EDAW/DKS Associates, September 2004.

## **5.4 Trip Distribution**

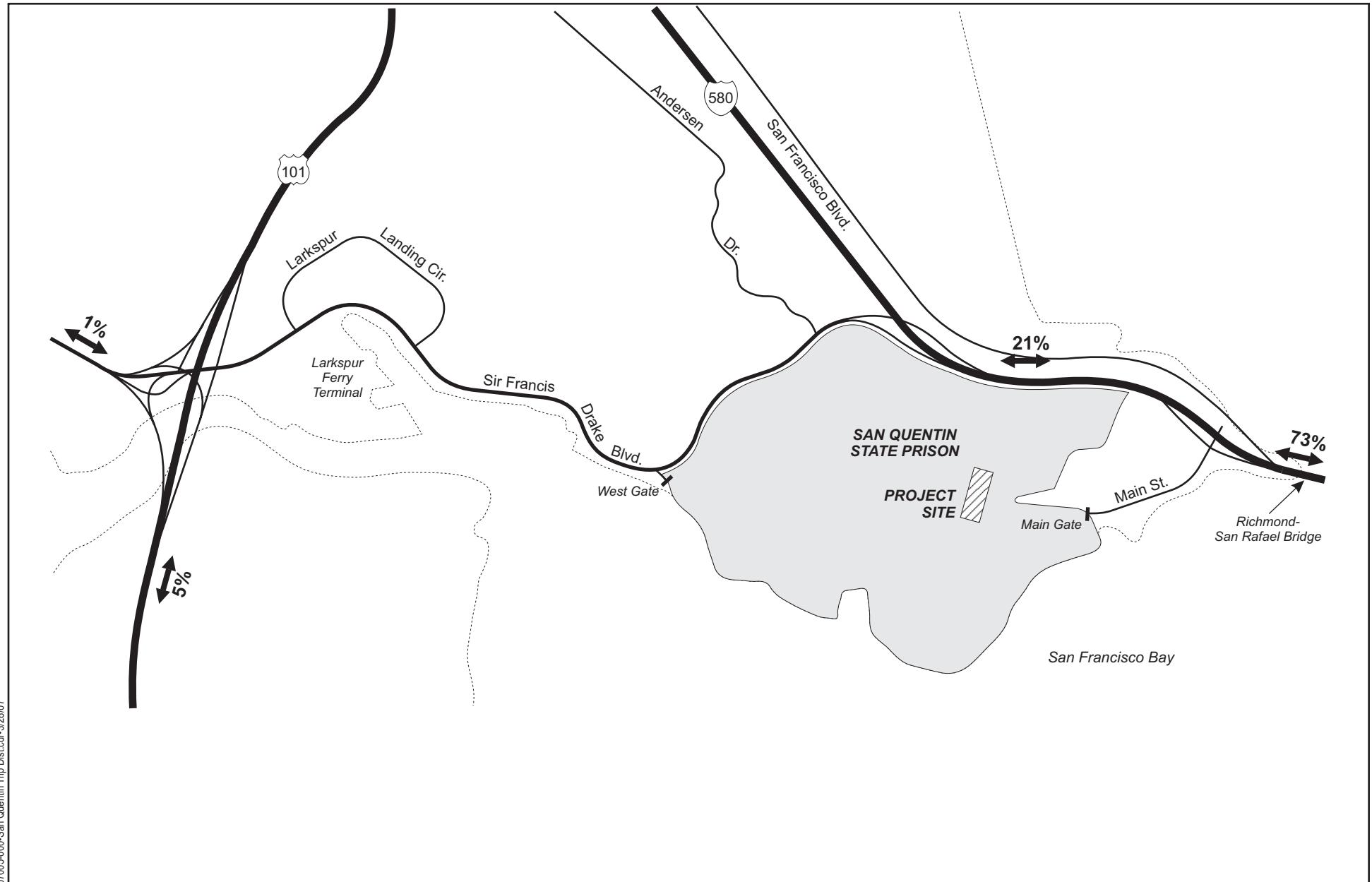
The directions of approach and departure for project trips were assumed to be consistent with travel patterns that were utilized in the SQSP CIC EIR, which were based on information related to employee's residences (by zip code) at the time of that analysis (2004) provided by the California Department of Corrections and Rehabilitation - Facilities Management Division. The zip code data used for the CIC EIR were found to be consistent with current residence data, with only slight changes that would not result in operational differences. **Figure 9** illustrates the trip distribution of the proposed project for the weekday AM, midday, and PM and weekend midday peak hours.

## **5.5 Trip Assignment**

The directions of approach and departure for project trips were estimated based on existing roadway network, the locations of the proposed project access points, travel patterns, and locations of complementary land uses. The proportion of these trips that would travel through the study intersections was used for the intersection LOS analysis under the project condition. Based on the existing locations of employee and visitor parking facilities, projected new trips were assigned to and from the east gate entrance via Main Street only.

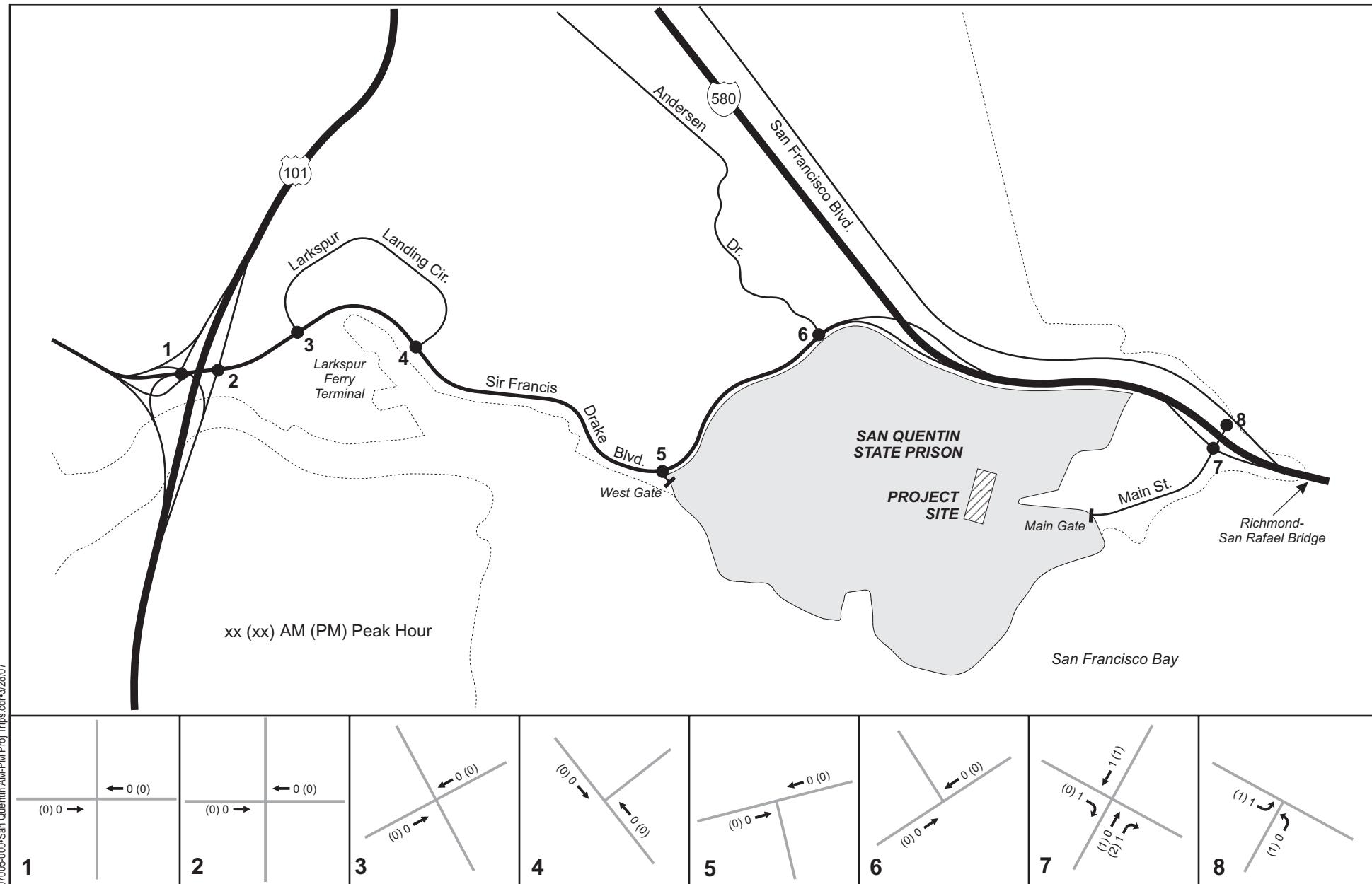
**Figure 10** illustrates the number of project trips at each of the study intersections for the weekday AM and PM peak hours. **Figure 11** illustrates the estimated project trips during the weekday midday and weekend midday peak hours. **Figure 12** illustrates the project scenario traffic volumes at each of the study intersections for the weekday AM, and PM peak hours. **Figure 13** illustrates the project scenario traffic volumes for the weekday midday and weekend midday peak hours.

**Table 7** provides a summary of the project scenario intersection service levels for each of the peak hours analyzed

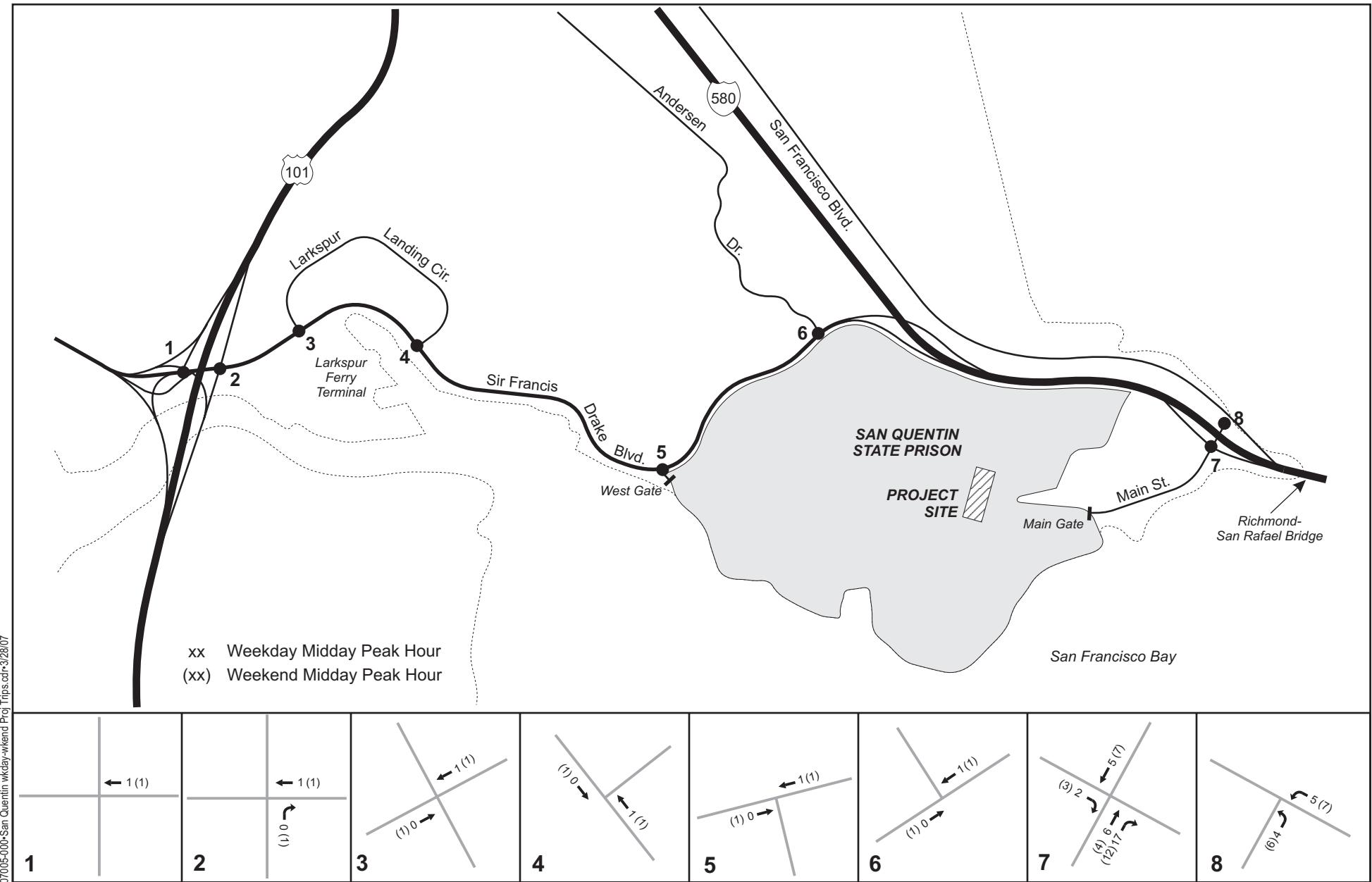


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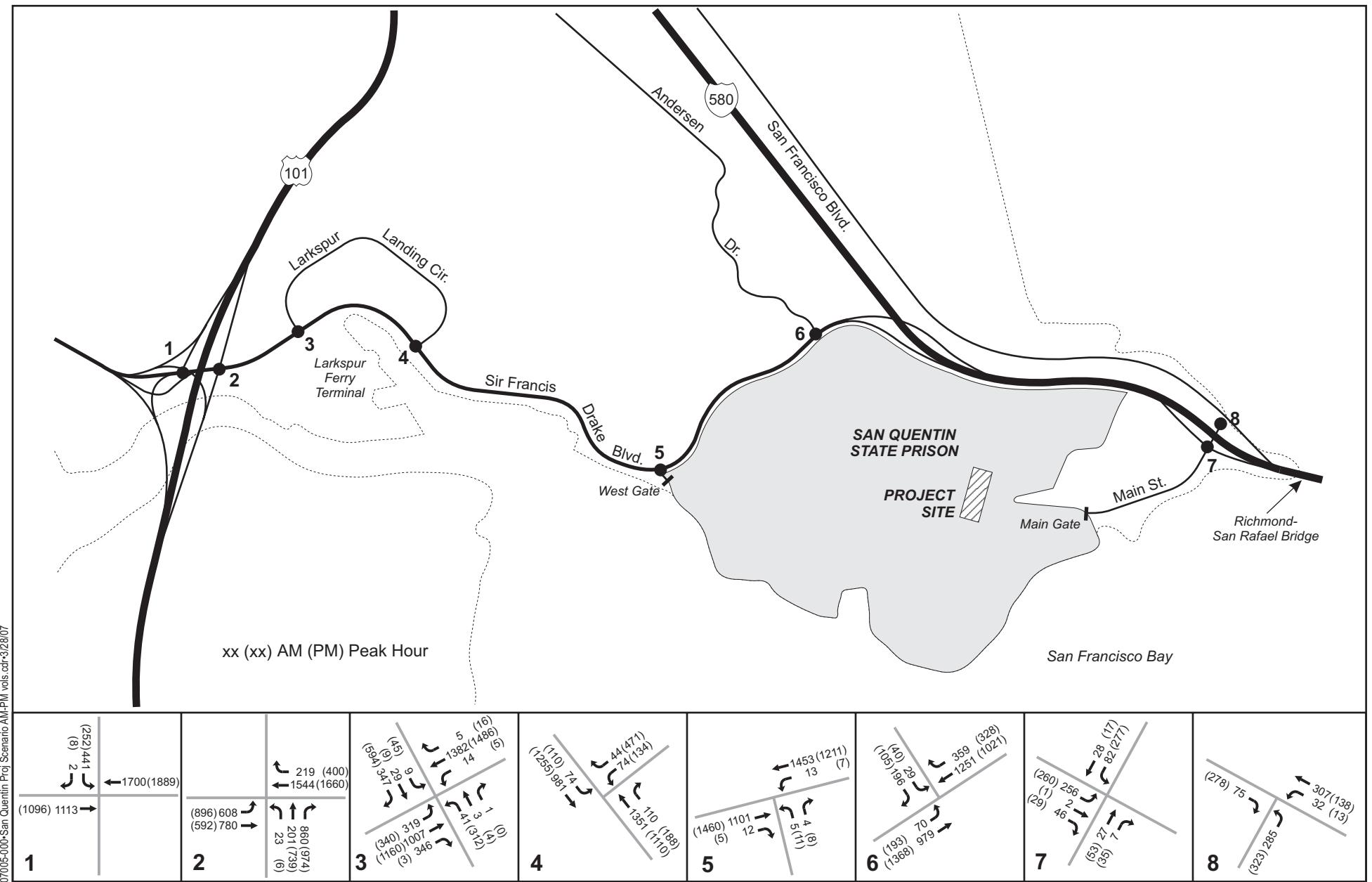
**Figure 9**  
**Project Trip Distribution**



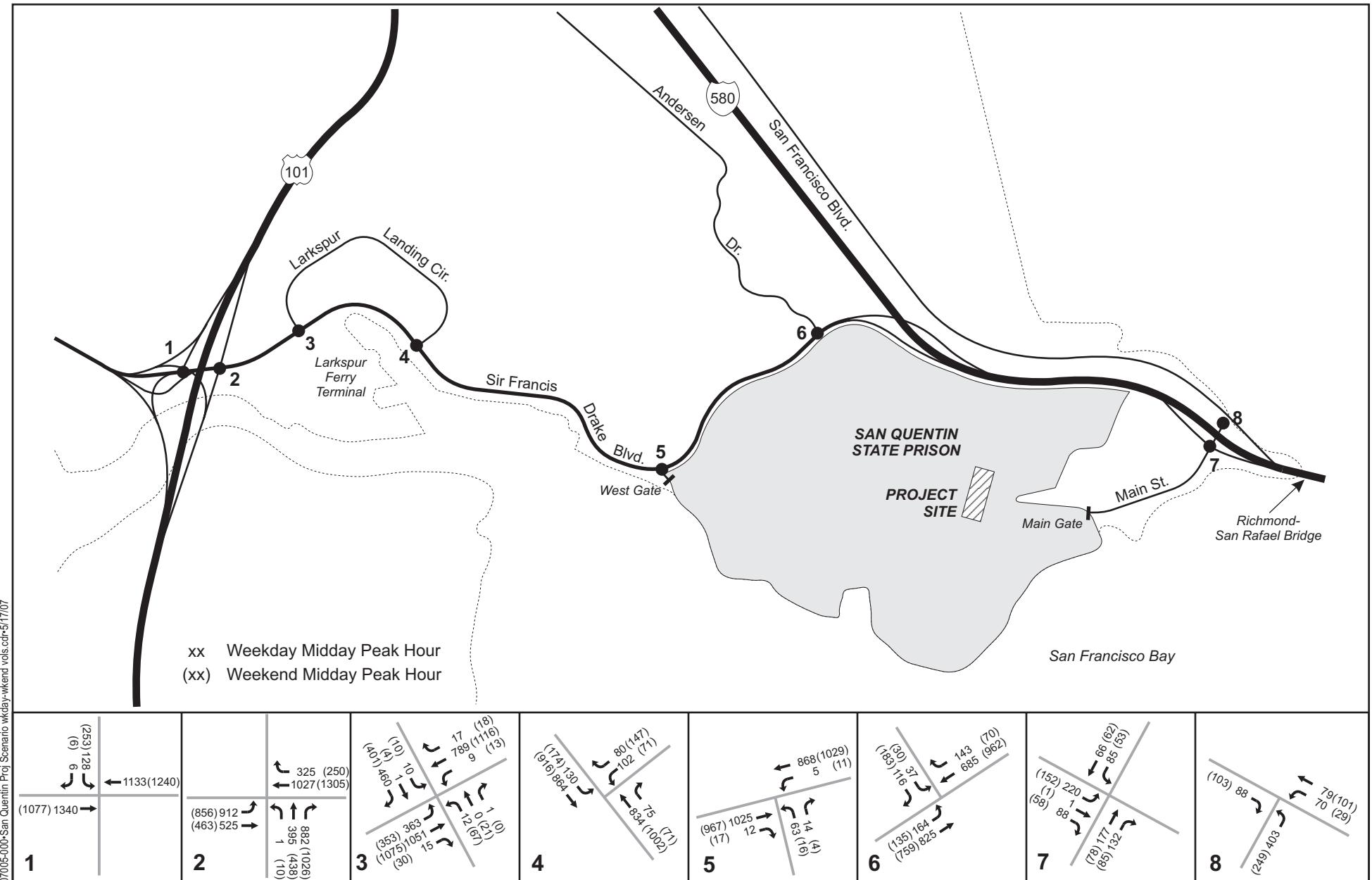
**Figure 10**  
**AM and PM Peak Hour Project Trips**



**Figure 11**  
**Weekday and Weekend Midday Project Trips**



**Figure 12**  
**Project Scenario**  
**AM and PM Peak Hour Traffic Volumes**



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**Figure 13**  
**Project Scenario**  
**Weekday and Weekend Midday Traffic Volumes**

**Table 7 Intersection LOS Analysis - Project Scenario**

#	Intersection	weekday						weekend	
		AM peak		midday		PM		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>						
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	14.0	B	5.3	B	8.2	B	10.3	B
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	20.6	C	61.5	F	22.4	C
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	16.8	C	19.2	C	40.8	E	19.4	C
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.5	B	10.0	B	18.8	C	11.9	B
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	>50	F
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	>50	F
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	5.8	B	6.8	E	7.7	B	6.6	B
8	<i>Main Street &amp; I-580 WB off-ramp<sup>4</sup></i>	11.9	B	12.1	B	11.2	B	10.4	B

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

## 5.6 Project Intersection Operation

Similar to the Existing and Background scenarios all study intersections within the City of Larkspur would continue to operate at an acceptable LOS under the project conditions, with the exception of the San Quentin West Gate and Sir Francis Drake Boulevard intersection. This intersection would continue to operate at LOS F during the weekday AM, midday, PM, and weekend midday peak hours. For an intersection that is already at LOS F in Larkspur, a significant reduction in system performance is defined as an increase of traffic volumes on any roadway segment or intersection approach by more than ten vehicles or more than one percent of the existing volume during the peak hour, whichever is less. The proposed project would not satisfy either of these significance criteria (see **Table 8**), and thus would not result in a significant impact at this intersection.

**Table 8      Proposed Project Contribution to Existing Intersection Volume**

#	Intersection	Existing Volumes	Project Trips	% of Existing Volume	Impact Yes/No
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd	Weekday AM	3,257	0	0.00% No
		Weekday Midday	2,615	1	0.04% No
		Weekday PM	3246	0	0.00% No
		Weekend Midday	2580	1	0.04% No
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd	Weekday AM	4237	0	0.00% No
		Weekday Midday	4072	1	0.02% No
		Weekday PM	5268	0	0.00% No
		Weekend Midday	4350	2	0.05% No
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd	Weekday AM	3505	0	0.00% No
		Weekday Midday	2731	1	0.04% No
		Weekday PM	3975	0	0.00% No
		Weekend Midday	3110	2	0.06% No
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd	Weekday AM	2636	0	0.00% No
		Weekday Midday	2086	1	0.05% No
		Weekday PM	3269	0	0.00% No
		Weekend Midday	2382	2	0.08% No
5	San Quentin West Gate & Sir Francis Drake Blvd	Weekday AM	2590	0	0.00% No
		Weekday Midday	1989	1	0.05% No
		Weekday PM	2703	0	0.00% No
		Weekend Midday	2045	2	0.10% No

In San Rafael, the intersection of Andersen Drive and Sir Francis Drake Boulevard intersection would continue to operate at LOS F during the weekday AM, midday, PM and weekend midday peak hours. However, the addition of project generated traffic would not exceed the significance thresholds for this intersection because the increase in average delay is less than five seconds.

The project would not result in other impacts per the significance criteria outlines in Section 5.1.

**Appendix B** includes the detailed calculation sheets for the project scenario including each analysis period.

**Tables 9 through 12 summarize** the intersection operations under the Existing, Background, and Project scenarios for the weekday AM, midday, PM, and weekend midday peak hours, respectively.

**Table 9 Intersection LOS Analysis - Weekday AM Peak Comparison**

#	Intersection	AM Peak Hour						Impact?	
		Existing		Background		Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	13.9	B	14.0	B	14.0	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	15.4	C	15.4	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	15.5	C	16.8	C	16.8	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.1	B	5.5	B	5.5	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	9.9	A	5.8	B	5.8	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	11.1	B	11.9	B	11.9	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Background and Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 10      Intersection LOS Analysis - Weekday Midday Peak Comparison**

#	Intersection	Weekday Midday Peak Hour						Impact?	
		Existing		Background		Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	5.2	B	5.3	B	5.3	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	19.7	C	20.6	C	20.6	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	18.6	C	19.2	C	19.2	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	9.8	B	10.0	B	10.0	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	10.5	B	6.8	B	6.8	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	11.3	B	11.9	B	12.1	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Background and Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 11      Intersection LOS Analysis - Weekday PM Peak Comparison**

#	Intersection	PM Peak Hour						Impact?	
		Existing		Background		Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	7.6	B	8.2	B	8.2	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	55.9	E	61.5	F	61.5	F	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	32.8	D	40.8	E	40.8	E	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	17.3	C	18.8	C	18.8	C	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	10.5	B	7.7	B	7.7	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	9.2	A	11.2	B	11.2	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Background and Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 12      Intersection LOS Analysis – Weekend Midday Peak Comparison**

#	Intersection	Weekend Midday Peak Hour						Impact?	
		Existing		Background		Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	10.1	B	10.3	B	10.3	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	21.0	C	22.4	C	22.4	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	18.7	C	19.4	C	19.4	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	11.8	B	11.9	B	11.9	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	9.2	A	6.5	B	6.6	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	9.9	A	10.3	B	10.4	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Background and Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

## 5.7    Transit Analysis

Transit trips potentially generated by the proposed project would not significantly impact the public transit service. Based on the 2000 census data for Marin County, about ten percent of the population utilizes public transportation. Of those, approximately seven percent use bus/trolley and three-percent use ferry service as their mode of transportation. Assuming similar transit-mode share, the proposed project would generate less than three peak-hour bus transit trips each weekday and weekend, which would not significantly increase load factors on transit vehicles. Any potential new transit users going to the San Quentin Prison Facility would continue to use the existing public transit services. The nearest bus stop (Golden Gate Transit Route 29) is located within walking distance from the San Quentin West Gate Entrance.

## 5.8 Pedestrian Circulation

Crossing signals, crosswalks and sidewalks are provided at the intersections of Larkspur Landing Circle (West and East) and Sir Francis Drake Boulevard. The estimated increase in vehicular traffic volumes at these intersections would not significantly impact the pedestrian movements. Due to its location and the use of the site, the project is not anticipated to generate new pedestrian volumes at the study intersections during typical daily operations.

## 5.9 Site Access and Internal Circulation

Project access and circulation were analyzed for the proposed project. The site plan (Figure 2) indicates access from Main Street (east gate) and Sir Francis Drake Boulevard (West Gate). The Main Street entrance provides direct access to the staff and visitor parking lot, located in the southeast side of SQSP, and would be the primary access and egress point for new project trips. Primary access to the H-Unit unpaved parking lot located in the northwest part of the facility is provided via the West Gate access from Sir Francis Drake Boulevard.

Emergency vehicles could also access the San Quentin State Prison via Main Street and Sir Francis Drake Boulevard, if necessary. The moderate increases in vehicular volumes (between 1 and 7 peak hour vehicles) are not anticipated to result in access and circulation impacts.

There are occasionally vehicle queues at the east gate today extending back on Main Street. These queues would continue in the future, assuming no change in the gate operation and security procedures. The queues would potentially extend further as a result of project-generated traffic, but not to any great extent. The number of inbound peak hour project-generated trips would range between two (weekday AM) and ten (weekend midday, see Table 6). That would mean on average that one additional vehicle would arrive at the gate about every 30 minutes in the weekday PM peak hour, and one about every six minutes during the weekend midday period. Although there are not established significance criteria for vehicle queues on Main Street, the number of additional peak hour vehicles is not anticipated to result in additional safety issues or circulation difficulty due to the relatively low number of new peak hour trips.

## 5.10 Parking Analysis

### Parking Supply

The proposed project does not include the addition of parking at the existing San Quentin State Prison parking facilities. However, the existing parking lot located near the east gate entrance accommodates approximately 383 parking spaces designated for employee parking; 91 spaces for overflow parking and 82 spaces for visitor parking. An additional 10 spaces are provided but are restricted for maintenance vehicles and an emergency exit.

SQSP also provides about 57 parking spaces designated for handicap and assigned parking spaces along Main Street in between the 1918, 1948 and Captains Porch Building.

Additionally, 218 parking spaces are also available and accessible via the West Gate entrance. Of those, approximately 135 spaces are designated for state vehicle, 42 spaces for recreational vehicles, and approximately 41 spaces are located at the H-Unit.

### **Existing Parking Occupancy**

A parking lot survey was conducted by Associates as part of the SQSP CIC Draft EIR (EDAW/DKS Associates, September 2004) during a typical weekday visitation day and weekend visitation day in March, 2004. Recent site visits by DKS were undertaken to confirm that parking utilization rates are approximately the same today as they were in 2004. The east gate employee/visitor parking lot facility currently experiences about 23% occupancy (126 occupied parking spaces) during the weekday AM peak hour, 32% occupancy (180 occupied parking spaces) during the weekday PM peak hour and 45% average (251 occupied parking spaces) during the weekend midday peak hour. **Table 13** shows the existing parking supply and parking demand of the existing parking facilities.

**Table 13 Existing Parking Supply and Demand**

Location		Parking Supply	Existing Parking Demand			
			Weekday			Weekend
			AM	Midday <sup>1</sup>	PM	Midday <sup>1</sup>
East Gate	Employee	383	122	136	151	183
	Visitor	82	2	8	14	53
	Overflow	91	2	8	15	15
<b>Total</b>		<b>556</b>	<b>126</b>	<b>152</b>	<b>180</b>	<b>251</b>
West Gate	State Vehicles	135	61	67	74	83
	RV's	42	41	41	42	37
	H-Unit	41	30	32	34	34
<b>Total</b>		<b>218</b>	<b>132</b>	<b>140</b>	<b>150</b>	<b>154</b>

Source: San Quentin Condemned Inmate Complex Draft EIR, EDAW/DKS Associates, September 2004.

### Parking Demand of Project

Based on the results of the parking survey and the SQSP employment at the time of the survey (based on the trip generation projections - **Table 5** and the parking utilization survey conducted at this site, see **Table 13**), it is estimated that the peak parking demand is a total of approximately one space for every 3.7 employees. On a typical weekday or weekend, the addition of 75 new employees would generate a need for an additional 13 parking spaces during the weekday AM peak hour, 15 parking spaces during the weekday midday peak hour, 17 parking spaces during the PM peak hour, and 20 during the weekend midday peak hour.

Based on the available parking supply and the relatively small additional demand, it is anticipated that the parking needs of the project would be accommodated in existing parking lots at SQSP. No parking impacts are anticipated.

### 5.11 Daily Traffic Volumes

The City of Larkspur requires analysis of average daily traffic (ADT) as part of a traffic impact study. For information purposes only and as part of the SQSP traffic study, daily traffic volumes for the roadway segments along Sir Francis Drake Boulevard were derived based on the existing PM peak hour traffic volumes as well as for the existing plus approved plus project traffic volumes. The PM peak hour traffic volumes represents an estimated 10 percent of the daily traffic for the Existing and Background Scenarios, thus, the sum of the eastbound and westbound approach volumes was divided by 0.10 to estimate the daily traffic volumes. **Table 14** shows the percentage increase in traffic volume along Sir Francis Drake Boulevard.

As a conservative estimate, daily trip generation from the proposed CHSC facility is based on the total number of new employees. As described previously, the new CHSC is anticipated to create 75 new employees with 25 employees for each of the three typical shifts. If each of the 75 employees were to make a trip to the project site in individual cars, 150 daily trips would be created. The daily trips were assigned to the roadway network assuming the same trip distribution patterns shown previously in Figure 9. No significant impacts to the daily traffic volumes are anticipated.

**Table 14 Daily Traffic Conditions – Sir Francis Drake Boulevard**

Roadway Segment	Direction	Existing	Background	Two-Way Daily Traffic Volumes			Percent Increase
				Existing	Background	Background + Project	
West of U.S. 101 SB off-ramp	EB	10,390	10,960	30,960	32,378	32,380	< 0.1 %
	WB	20,570	21,418				
East of U.S. 101/NB on/off ramp	EB	14,490	15,660	34,350	36,260	36,269	< 0.1 %
	WB	19,860	20,600				
West of Larkspur Landing Circle (West)	EB	13,860	15,030	31,840	33,460	33,469	< 0.1 %
	WB	17,980	18,430				
West of Larkspur Landing Circle (East)	EB	12,990	13,650	25,030	26,090	26,099	< 0.1 %
	WB	12,040	12,440				
West of the West Gate Entrance	EB	13,630	14,650	24,950	26,870	26,879	< 0.1 %
	WB	11,320	12,220				
West of Andersen Drive	EB	14,590	15,610	24,270	26,220	26,229	< 0.1 %
	WB	9,680	10,610				

## 5.12 Routes of Regional Significance

Because the proposed project would generate less than 100 PM peak hour trips, a CMP analysis is not required, and the following is provided for informational purposes only. The 2005 Marin County Congestion Management Program Plan specifies that an increase of traffic greater than one percent of the capacity would result in a significant impact. The current two-way capacity of Interstate 580 and US 101 is approximately 9,000 and 13,500 vehicles per day, respectively. Therefore one percent of the respective capacities would be approximately 90 and 135 vehicles. Because the proposed project would generate approximately three trips during the AM and PM peak hours, and less than 30 hourly trips during off peak hours, significant peak hour impacts on CMP roadways are not anticipated.

**Average Daily Traffic**

Based on input from Caltrans Staff, an analysis of daily traffic was required as part of this study. Average Daily Traffic on State highway facilities including mainline and ramp segments was obtained from Caltrans. Estimates of the ADT for the Background Scenario is based on growth patterns calculated as a result of the addition of planned and approved projects as discussed previously in Section 4. Based on the Background Scenario, it is estimated that the addition of approved projects would increase existing traffic in the area by approximately six percent. Similar to the ADT estimates of Sir Francis Drake Boulevard, a conservative estimate of 150 daily project trips were used assuming each of the new employees were to drive individually to and from the project site. For information purposes only, the estimated increase related to the proposed project as is described in **Table 15**. The minimal increase in daily traffic on Caltrans facilities is not anticipated to significantly affect the current operating conditions.

**Table 15 Daily Traffic Conditions – Caltrans Facilities**

Roadway Segment		Average Daily Traffic Volumes				Percent Increase
Route	Location	Existing	Background	Added Project Trips	Background + Project	
<b>Mainline Segments</b>						
US 101	South of Sir Francis Drake	170,000	180,186	8	180,194	< 0.1%
I-580	San Rafael Bridge	77,000	81,416	110	81,525	0.1%
I-580	West of Sir Francis Drake	80,000	84,741	32	84,773	< 0.1%
<b>Ramp Segments</b>						
US 101	SB On Ramp from Sir Francis Drake	28,500	30,203	4	30,207	< 0.1%
US 101	NB Off Ramp from Sir Francis Drake	32,500	34,443	4	34,447	< 0.1%
I-580	WB off to Main St. (San Quentin)	1,750	1,753	55	1,808	3.1%
I-580	WB on from Main St. (San Quentin)	3,600	3,787	16	3,802	0.4%
I-580	EB off to Main St. (San Quentin)	2,600	2,727	16	2,742	0.6%
I-580	EB on from Main St. (San Quentin)	1,650	1,647	55	1,702	3.3%

Source: Caltrans, 2004 and 2005

## 5.13 Construction Impacts

### Construction Related Truck Traffic

The estimated number of truck trips is based on the quantity of material which is calculated based on 400 cubic yards (cy) of material demolished per day; which results in approximately 20 truck trips per day. The quantity of building demolition is approximately 5,000 cy, demolition of the retaining wall is less than 2,000 cy, and between 2,000 and 3,000 cy combined of earthwork hauled out and brought in. Based on this amount totaling almost 10,000 cy, the total number of trucks needed would be 500 trucks during a period of 25 days, during the peak construction periods, or approximately 20 round trips per day (40 total trips).

The 40 truck trips per day would likely be spread throughout the day and it is anticipated that the total number of peak hour trips would be less than 10 vehicles. Based on the detailed operating conditions (Appendix B), traffic traveling along Sir Francis Drake Boulevard would not experience any delay at the intersection of the West Gate Entrance. Vehicles traveling westbound, making a left-turn into the SQSP West Gate would experience average delays less than 15 seconds (LOS B or better) during each of the analysis scenarios. Vehicles exiting the West Gate, making left turns onto the westbound direction of Sir Francis Drake Boulevard typically experience the most delays, with operating conditions for this movement at LOS F for each of the analysis scenarios. Vehicles exiting the West Gate and turning right onto eastbound Sir Francis Drake Boulevard have a merge lane and delays are typically minimal.

Due to the low amount construction traffic during each of the peak hours (less than 10 vehicles), construction related truck traffic impacts are anticipated to be less than significant. Any increased delays would be experienced by the exiting construction vehicles or trips related to the project site only, and no increased delays are anticipated for the general traffic flow. No significant construction impacts to the existing roadway network are anticipated.

### Construction Related Employee Trips

Construction period trip generation estimates were based on the information provided by CDCR Staff. The CHSC project would be constructed over a 27 month year period. During the peak construction period (approximately 3 months), construction activities would require up to 180 construction workers that would commute to the site on the daily basis. These construction workers would result in the generation of 277 daily vehicle trips (139 inbound, 139 outbound). In addition, 40 one-way truck trips would occur on a daily basis for the hauling of project equipment and supplies, resulting in a total of 317 trips.

To provide additional information regarding construction-related vehicle trips and their potential affect on study area roadways and intersections during peak hours, a sensitivity analysis was conducted to determine how many additional vehicle trips could be added to the local roadway network before triggering impacts to area intersections. The sensitivity analysis included evaluation of the study area intersections. The peak-hour used in the analysis included the weekday AM (8:00 to 9:00 AM), and PM (5:00 to 6:00 PM) peak-hours. These times correspond to traffic counts and peaking characteristics for local traffic, and were used in preparation of the traffic analysis for the project.

The thresholds for significant impacts on freeway segments are based on the 2005 CMP Plan. An increase in traffic greater than one percent of existing capacity would trigger a significant impact, requiring mitigation. In addition, at unsignalized intersections operating at LOS F in the City of San Rafael, a five second increase in average delay also constitutes a significant impact, requiring mitigation. During the peak periods, the maximum threshold before triggering a significant impact on freeway segments is 90 vehicles per hour, which is equal to one percent of the peak-hour capacity. Thresholds for significant impacts at study intersections between the west gate and freeway segments were found to be greater than 90 vehicles during the AM peak hour. During the PM peak hour, the study intersections could accommodate up to 74 peak-hour trips without adverse affects. PM peak hour trips in excess of 74 trips would trigger significant traffic impacts at the intersection of Sir Francis Drake and Andersen Drive. Thus, construction traffic would need to remain below the threshold of 74 additional PM peak-hour trips. To offset significant impacts at the intersection of Sir Francis Drake Boulevard and Andersen Drive, contractors may temporarily implement additional traffic control (i.e. traffic control flag-persons). With implementation of traffic control at Sir Francis Drake Boulevard and Andersen Drive, the threshold for significant impacts during the PM Peak hour increase to 90 vehicles per hour, similar to the AM peak hour.

During the peak construction period, if all construction workers arrived during the AM peak hour and departed during the PM peak hour, then the project would potentially result in as many as 149 trips during each of the peak hours (139 construction workers plus 10 truck trips). Although these construction trips would be temporary, they would potentially affect the operation of local roadway intersections because they would occur during peak traffic hours, which would be a significant construction-related traffic impact. Based on the recommendations in the SQSP CTMP, employee vehicles entering or exiting the site at the start and end of the work shifts would be required to do so during the non-peak hours in an effort to not exceed the peak hour vehicle limits. Based on the currently available information for the CHSC construction, construction worker trips to and from the site at the start and end of the work shifts are not anticipated during the peak hours. Construction related traffic during the AM and PM peak periods is anticipated to be limited to construction related truck or material delivery trips.

The CDCR is preparing a construction traffic control plan (CTMP) to plan for the arrival and departure of construction employees and vehicles. The plan establishes a maximum threshold of vehicles per peak-hour for construction-related traffic trips, taking into account additional thresholds such as queue spillback and route restrictions. The threshold includes construction-related traffic trips that could coincide with the SQSP CIC project construction. If construction activities on both projects overlap, the total number of potential peak-hour construction-related trips associated with both projects would need to remain below the threshold of 74 vehicles per peak-hour.

Based on input from CDCR and preliminary recommendations from the CTMP, construction employee trips are not anticipated to generate any peak hour trips. The peak rush hours on Sir Francis Drake Boulevard occur from 8:00 to 9:00 AM and from 5:00 to 6:00 PM. It is anticipated that the majority of construction employees would arrive at the site between 6:30 and 7:00 AM, and would leave the site between 3:00 to 4:00 PM.

## 6.0 CUMULATIVE CONDITIONS

This section describes the traffic operating conditions at the study intersections under the Cumulative scenario. The Cumulative scenario includes Background conditions traffic generated by approved and planned projects prior to completion of the proposed project (2010), plus anticipated traffic from the SQSP CIC project.

Planned and approved projects included in the Cumulative scenario are similar to those described previously in the Background conditions scenario. However, the SQSP Condemned Inmate Complex project is also included in the Cumulative scenario to illustrate operating conditions in the area, including potential traffic growth from San Quentin.

Vehicular traffic that the CIC project would generate was added to the Background condition intersection turning movement volumes at the study intersections for each of the four analysis periods (Weekday AM, Midday, PM, and Weekend Midday) in order to evaluate the overall Cumulative scenario. Cumulative intersection volumes for the weekday midday and weekend midday peak hour were derived based on the projected growth from the background approved projects during the PM peak hour scenario plus the addition of traffic generated by the CIC project. **Table 16** summarizes the estimated trip generation for the CIC project for each of the analysis periods.

**Table 16      Condemned Inmate Complex – Trip Generation**

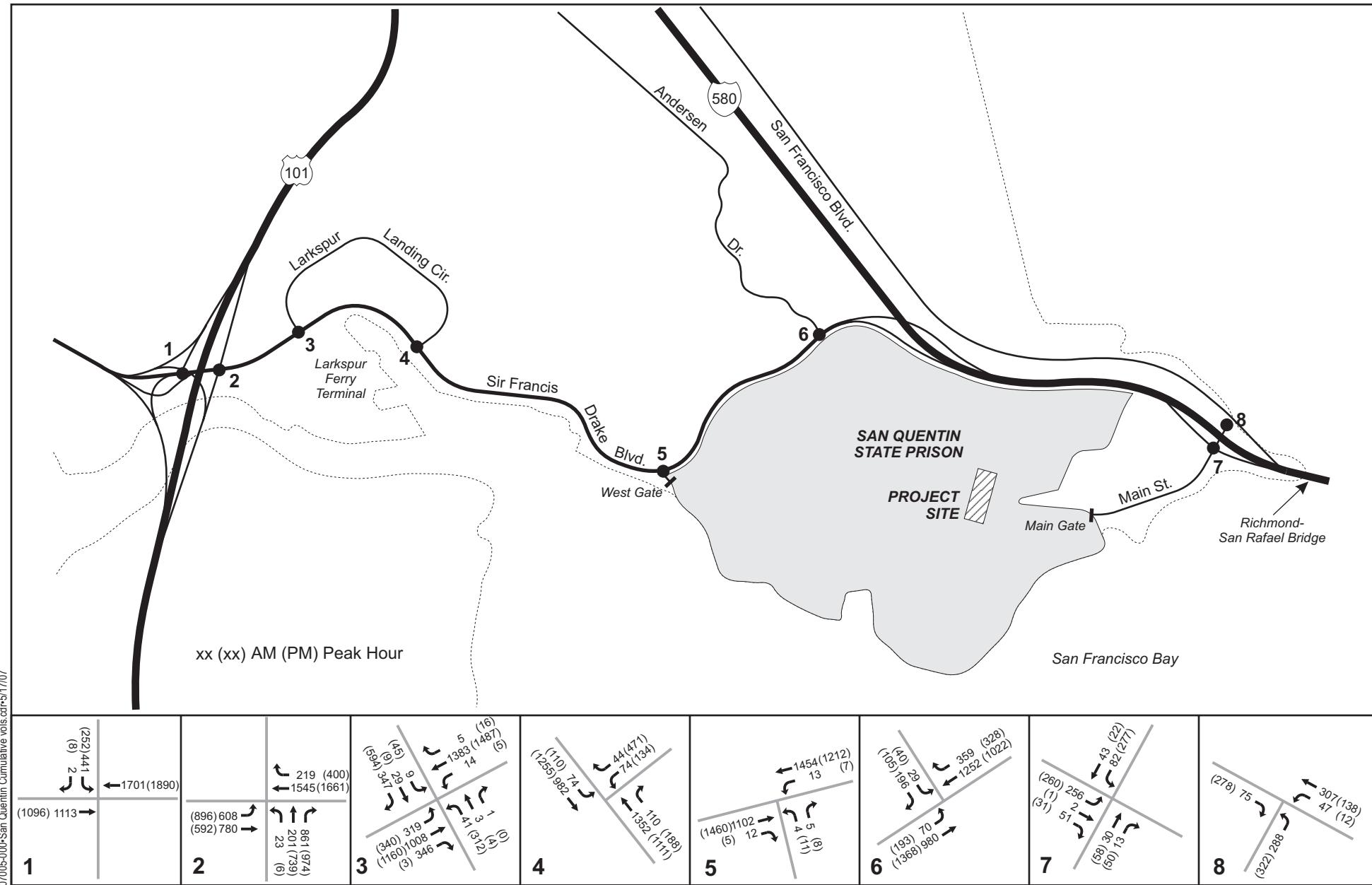
Period	WEEKDAY						WEEKDAY	
	AM PEAK		MIDDAY PEAK		PM PEAK		MIDDAY PEAK	
	Trips		Trips		Trips		Trips	
SQSP CIC Project	In	Out	In	Out	In	Out	In	Out
	22	10	26	87	8	23	38	60

Source: San Quentin Condemned Inmate Complex Draft EIR, EDAW/DKS Associates, September 2004.

### 6.1 Cumulative Conditions Traffic Volumes

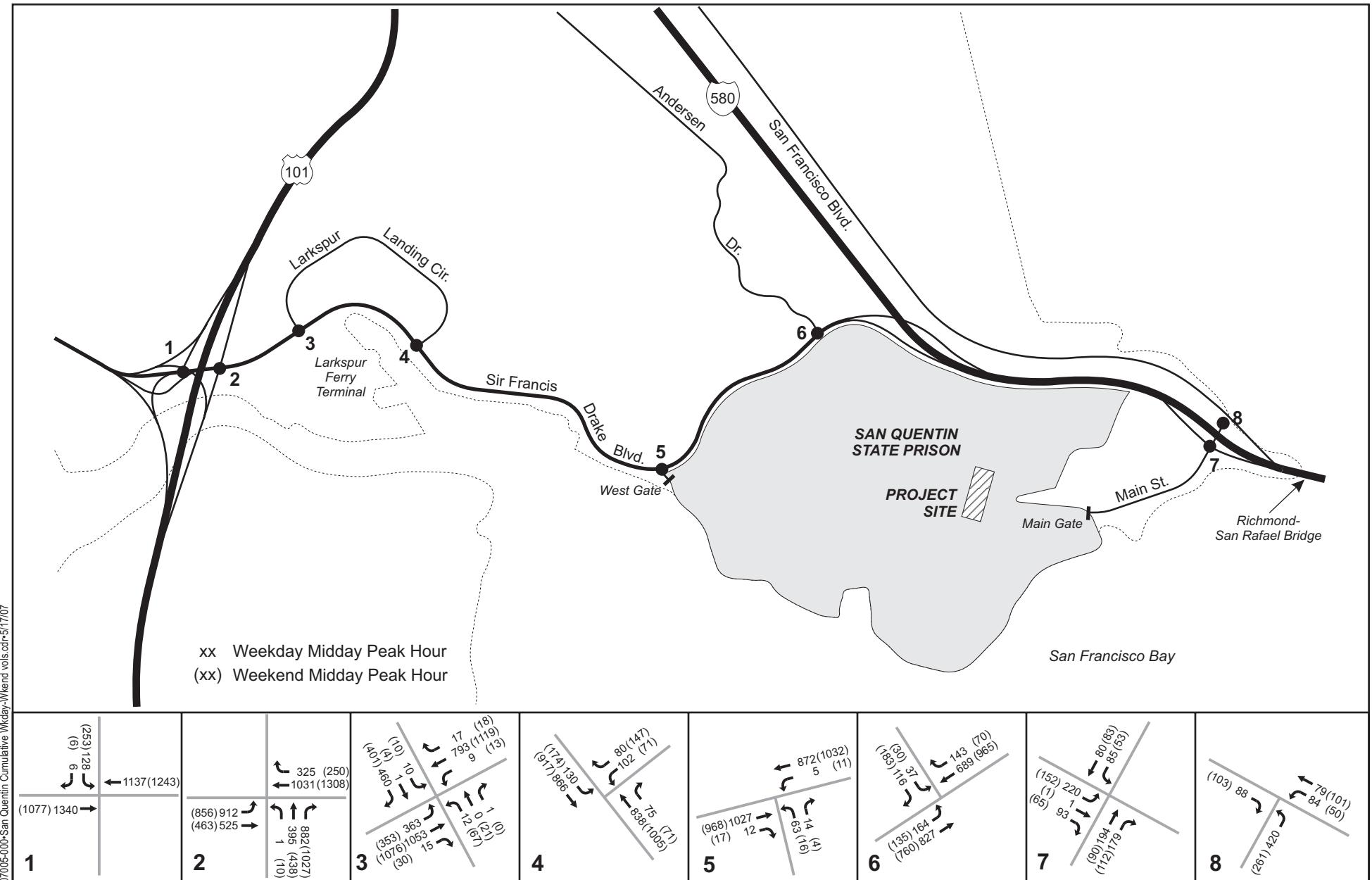
In general, the Cumulative conditions scenario includes traffic from the Background scenario plus traffic from the approved CIC project.

**Figure 14** illustrates the Cumulative scenario weekday AM and PM peak hour volumes. **Figure 15** illustrates the Cumulative scenario weekday midday and weekend midday peak hour volumes. **Table 17** provides a summary of the Cumulative scenario intersection LOS for each of the peak periods analyzed.



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**Figure 14**  
**Cumulative Scenario**  
**AM and PM Peak Hour Traffic Volumes**



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**Figure 15**  
**Cumulative Scenario**  
**Weekday and Weekend Midday Traffic Volumes**

**Table 17 Intersection LOS Analysis – Cumulative (No Project) Scenario**

#	Intersection	weekday						weekend	
		AM peak		midday		PM		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>						
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	14.0	B	5.3	B	8.2	B	10.2	A
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	20.6	C	61.6	F	22.4	C
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	16.8	C	19.2	C	40.8	E	19.4	C
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.4	B	9.9	B	18.8	C	11.9	B
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	>50	F	>50	F
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	>50	F
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	6.1	B	6.8	B	7.8	B	6.5	B
8	<i>Main Street &amp; I-580 WB off-ramp<sup>4</sup></i>	12.2	B	12.8	B	11.2	B	10.9	B

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Cumulative Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

## 6.2 Cumulative Intersection Operation

According to the City of Larkspur intersection LOS standards, all study intersections would continue to operate at an acceptable LOS for the Cumulative conditions, with the exception of the San Quentin West Gate and Sir Francis Drake Boulevard intersection. This intersection would continue to operate at LOS F during the weekday AM, midday, PM, and weekend midday peak hours, due to the difficulty motorists will face making a left turn out of SQSP at the West Gate onto Sir Francis Drake Boulevard.

In the City of San Rafael, similar to the existing conditions, the Andersen Drive and Sir Francis Drake Boulevard intersection would continue to operate at LOS F during the weekday AM, midday, PM and weekend midday peak hours, due to delays faced by motorists making a left turn from Andersen Drive towards the I-580 eastbound on-ramp.

**Appendix B** includes the detailed calculation sheets for the Cumulative scenario including each analysis period.

## 7.0 CUMULATIVE PLUS PROJECT CONDITIONS

This section evaluates cumulative traffic conditions plus project-generated traffic estimated for the proposed project. The amount of traffic associated with the proposed project was described previously in Section 5.0.

### 7.1 Significance Criteria and Project Impacts

The significance criteria used for the Cumulative plus Project scenario are the same as those previously described in Section 5.0. Cumulative plus project related impacts were determined based on the changes in traffic operating conditions in comparisons to the Cumulative (without project) conditions.

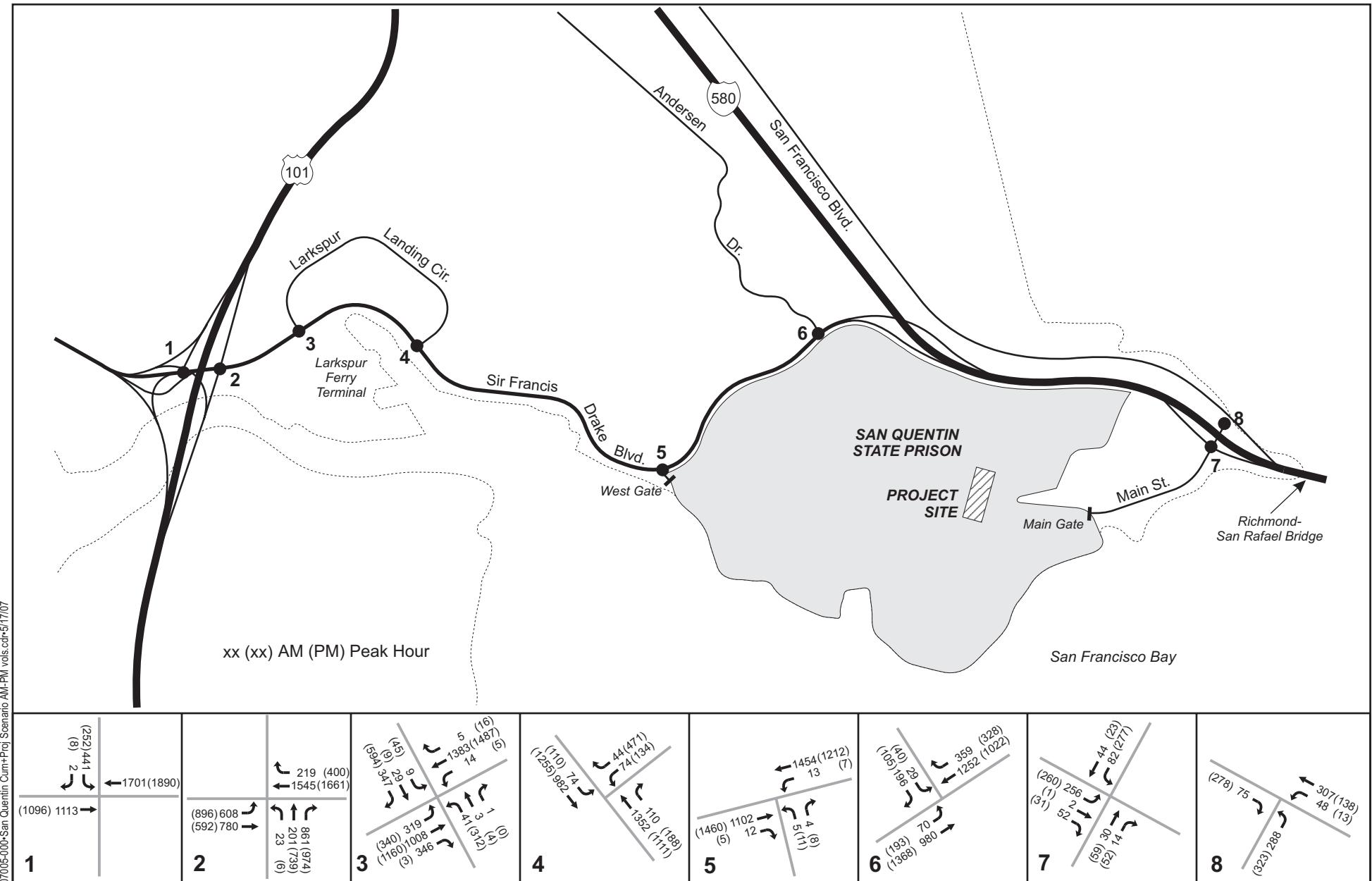
Trip generation, trip distribution, and trip assignment remains consistent with the methodologies described in Section 5.

The number of project trips added to each of the study intersections for the weekday AM and PM peak hours and the weekday and weekend midday peak periods were previously illustrated in Figures 10 and 11, respectively in Section 5. **Figure 16** illustrates the Cumulative plus Project scenario traffic volumes at each of the study intersections for the weekday AM, and PM peak hours. **Figure 17** illustrates the Cumulative plus Project scenario traffic volumes for the weekday midday and weekend midday peak hours.

### 7.2 Cumulative plus Project Intersection Operation

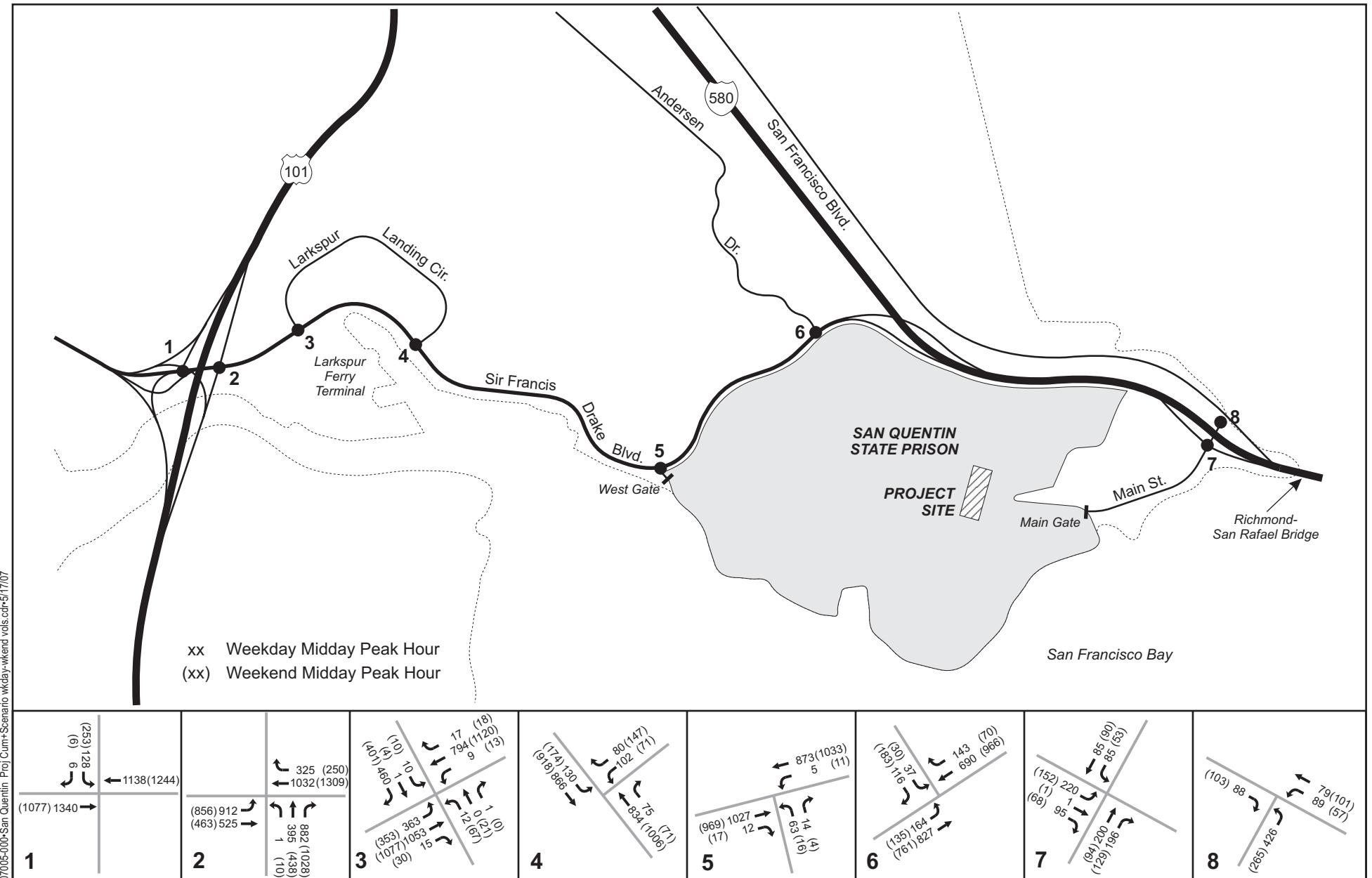
**Table 18** provides a summary of the Cumulative plus Project scenario intersection service levels for each of the peak hours analyzed. **Table 19** summarizes the amount of project trips that would be added to the study intersections during each of the analysis periods.

Similar to the Existing and Background scenarios all study intersections within the City of Larkspur would continue to operate at an acceptable LOS under the Cumulative plus Project conditions, with the exception of the San Quentin West Gate and Sir Francis Drake Boulevard intersection. This intersection would continue to operate at LOS F during the weekday AM, midday, PM, and weekend midday peak hours. For an intersection that is already at LOS F in Larkspur, a significant reduction in system performance is defined as an increase of traffic volumes on any roadway segment or intersection approach by more than ten vehicles or more than one percent of the existing volume during the peak hour, whichever is less. The proposed project would not satisfy either of these significance criteria, and thus would not result in a significant impact at this intersection.



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**Figure 16**  
**Cumulative Plus Project Scenario**  
**AM and PM Peak Hour Traffic Volumes**



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**Figure 17**  
**Cumulative plus Project Scenario**  
**Weekday and Weekend Midday Traffic Volumes**

**Table 18      Intersection LOS Analysis – Cumulative plus Project Scenario**

#	Intersection	weekday						weekend	
		AM peak		midday		PM		midday	
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>						
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	14.0	B	5.3	B	8.2	B	10.2	B
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	20.6	C	61.6	F	22.4	C
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	16.8	C	19.2	C	40.8	E	19.4	C
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.4	B	9.9	B	18.8	C	11.9	B
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>3</sup></i>	>50	F	>50	F	>50	F	>50	F
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	>50	F	>50	F
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	6.1	B	6.8	B	7.8	B	6.5	B
8	<i>Main Street &amp; I-580 WB off-ramp<sup>4</sup></i>	12.2	B	13.0	B	11.2	B	11.1	B

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 19      Proposed Project Contribution to Existing Intersection Volume**

#	Intersection	Existing Volumes	Project Trips	% of Existing Volume	Impact Yes/No
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd	Weekday AM	3,257	0	0.00% No
		Weekday Midday	2,615	1	0.04% No
		Weekday PM	3246	0	0.00% No
		Weekend Midday	2580	1	0.04% No
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd	Weekday AM	4237	0	0.00% No
		Weekday Midday	4072	1	0.02% No
		Weekday PM	5268	0	0.00% No
		Weekend Midday	4350	2	0.05% No
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd	Weekday AM	3505	0	0.00% No
		Weekday Midday	2731	1	0.04% No
		Weekday PM	3975	0	0.00% No
		Weekend Midday	3110	2	0.06% No
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd	Weekday AM	2636	0	0.00% No
		Weekday Midday	2086	1	0.05% No
		Weekday PM	3269	0	0.00% No
		Weekend Midday	2382	2	0.08% No
5	San Quentin West Gate & Sir Francis Drake Blvd	Weekday AM	2590	0	0.00% No
		Weekday Midday	1989	1	0.05% No
		Weekday PM	2703	0	0.00% No
		Weekend Midday	2045	2	0.10% No

In San Rafael, the intersection of Andersen Drive and Sir Francis Drake Boulevard intersection would continue to operate at LOS F during the weekday AM, midday, PM and weekend midday peak hours. However, the addition of project generated traffic would not exceed the significance thresholds for this intersection because the increase in average delay is less than five seconds. The project would not result in other impacts per the significance criteria outlined in Section 5.1. Appendix B includes the detailed calculation sheets for the Cumulative plus Project scenario including each analysis period.

**Tables 20 through 23 summarize** the intersection operations under the cumulative and Cumulative plus Project scenarios for the weekday AM, midday, PM, and weekend midday peak hours, respectively.

**Table 20      Cumulative plus Project LOS Analysis - Weekday AM Peak Comparison**

#	Intersection	AM Peak Hour				Impact?	
		Cumulative		Cumulative plus Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	14.0	B	14.0	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	15.4	C	15.4	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	16.8	C	16.8	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	5.4	B	5.4	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	6.1	B	6.1	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	12.2	B	12.2	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Cumulative and Cumulative plus Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 21      Cumulative plus Project LOS Analysis - Weekday Midday Comparison**

#	Intersection	Weekday Midday Peak Hour				Impact?	
		Cumulative		Cumulative plus Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	5.3	B	5.3	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	20.6	C	20.6	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	19.2	C	19.2	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	9.9	B	9.9	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	6.8	B	6.8	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	12.8	B	13.0	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Cumulative and Cumulative plus Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 22      Cumulative plus Project LOS Analysis - Weekday PM Comparison**

#	Intersection	PM Peak Hour				Impact?	
		Cumulative		Cumulative plus Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	8.2	B	8.2	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	61.6	F	61.6	F	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	40.8	E	40.8	E	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	18.8	C	18.8	C	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	7.8	B	7.8	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	11.2	B	11.2	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Cumulative and Cumulative plus Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

**Table 23      Cumulative plus Project LOS Analysis - Weekend Midday Peak Comparison**

#	Intersection	Weekend Midday Peak Hour				Impact?	
		Cumulative		Cumulative plus Project			
		Avg. Delay <sup>1</sup>	LOS <sup>2</sup>	Avg. Delay <sup>1</sup>	LOS <sup>2</sup>		
1	U.S. 101 SB off-ramp & Sir Francis Drake Blvd <sup>3</sup>	10.2	A	10.2	B	NO	
2	U.S. 101 NB on/off ramp & Sir Francis Drake Blvd <sup>3</sup>	22.4	C	22.4	C	NO	
3	Larkspur Landing Cr (W) & Sir Francis Drake Blvd <sup>3</sup>	19.4	C	19.4	C	NO	
4	Larkspur Landing Cr (E) & Sir Francis Drake Blvd <sup>3</sup>	11.9	B	11.9	B	NO	
5	<i>San Quentin West Gate &amp; Sir Francis Drake Blvd<sup>8</sup></i>	>50	F	>50	F	NO	
6	<i>Andersen Drive &amp; Sir Francis Drake Blvd<sup>4</sup></i>	>50	F	>50	F	NO	
7	Main Street & I-580 EB on/off ramp <sup>4</sup>	6.5	B	6.5	B	NO	
8	Main Street & I-580 WB off-ramp <sup>4</sup>	10.9	B	11.1	B	NO	

**Notes:** Intersections 1-4, & 7 are signalized; Intersections 5, 6, & 8 are unsignalized for the Cumulative and Cumulative plus Project Conditions.

<sup>1</sup> Avg. Delay: Average Delay in seconds per vehicle.

<sup>2</sup> LOS: Level of Service

<sup>3</sup> City of Larkspur Intersection

<sup>4</sup> City of San Rafael Intersection

### 7.3 Cumulative Transit Analysis

Transit trips potentially generated by the proposed project would not significantly impact the public transit service. Based on the 2000 census data for Marin County, about ten percent of the population utilizes public transportation. Of those, approximately seven percent use bus/trolley and three-percent use ferry service as their mode of transportation. Assuming similar transit-mode share, the proposed project would generate less than three peak-hour bus transit trips each weekday and weekend, which would not significantly increase load factors on transit vehicles that would be anticipated under the cumulative scenario.

### 7.4 Cumulative Pedestrian Circulation

Crossing signals, crosswalks and sidewalks are provided at the intersections of Larkspur Landing Circle (West and East) and Sir Francis Drake Boulevard. No changes to the existing

pedestrian facilities are anticipated for the cumulative conditions. As described previously in Section 5, the estimated increase in vehicular traffic volumes at these intersections would not significantly impact the pedestrian movements. Due to its location and the use of the site, the project is not anticipated to generate new pedestrian volumes at the study intersections during typical daily operations.

## **7.5 Cumulative Site Access and Internal Circulation**

Project access and circulation were analyzed for the proposed project previously in Section 5. The site plan (Figure 2) indicates access from Main Street (east gate) and Sir Francis Drake Boulevard (West Gate). The Main Street entrance provides direct access to the staff and visitor parking lot, located in the southeast side of SQSP, and would be the primary access and egress point for the anticipated project trips. Access to the H-Unit unpaved parking lot located in the northwest part of the facility is provided via the West Gate access from Sir Francis Drake Boulevard.

Emergency vehicles could also access the San Quentin State Prison via Main Street and Sir Francis Drake Boulevard, if necessary. The moderate increases in vehicular volumes (between 1 and 7 peak hour vehicles) are not anticipated to result in access and circulation impacts under the Cumulative plus Project scenario.

There are occasionally vehicle queues at the east gate today extending back on Main Street. These queues would continue in the future, assuming no change in the gate operation and security procedures. The queues would potentially extend further as a result of project-generated traffic, but not to any great extent. The number of inbound peak hour project-generated trips would range between two (weekday AM) and ten (weekend midday, see Table 6). That would mean on average that one additional vehicle would arrive at the gate about every 30 minutes in the weekday PM peak hour, and one about every six minutes during the weekend midday period. Although there are not established significance criteria for vehicle queues on Main Street, the number of additional peak hour vehicles is not anticipated to result in additional safety issues or circulation difficulty due to the relatively low number of new peak hour trips.

## **7.6 Cumulative Parking Analysis**

### **Parking Supply**

The proposed project does not include additional parking supply at the San Quentin State Prison under the cumulative conditions. However, the parking lot located near the east gate entrance accommodates approximately 383 parking spaces designated for employee parking; 91 spaces for overflow parking and 82 spaces for visitor parking. An additional 10 spaces are provided but are restricted for maintenance vehicles and an emergency exit.

SQSP also provides about 57 parking spaces designated for handicap and assigned parking spaces along Main Street in between the 1918, 1948 and Captains Porch Building.

Additionally, 218 parking spaces are also available and accessible via the West Gate entrance. Of those, approximately 135 spaces are designated for state vehicle, 42 spaces for recreational vehicles, and approximately 41 spaces are located at the H-Unit.

### **Cumulative Parking Occupancy**

A parking lot survey was conducted by DKS Associates as part of the SQSP CIC Draft EIR (EDAW/DKS Associates, September 2004) during a typical weekday visitation day and weekend visitation day in March, 2004. Recent site visits by DKS were undertaken to confirm that parking utilization rates are approximately the same today as they were in 2004. The east gate employee/visitor parking lot facility currently experiences about 23% occupancy (126 occupied parking spaces) during the weekday AM peak hour, 32% occupancy (180 occupied parking spaces) during the weekday PM peak hour and 45% average (251 occupied parking spaces) during the weekend midday peak hour. Under the Cumulative condition, potential parking demand from the CIC project was added to the existing demand. **Table 24** shows the existing parking supply and cumulative parking demand at SQSP.

**Table 24 Existing Parking Supply and Cumulative Demand**

Location		Existing Parking Supply	Cumulative Parking Demand			
			Weekday			Weekend
			AM	Midday	PM	Midday
East Gate	Employee	383	138	188	167	232
	Visitor	82	2	8	14	53
	Overflow	91	2	8	15	15
<b>Total</b>		<b>556</b>	<b>142</b>	<b>204</b>	<b>196</b>	<b>300</b>
West Gate	State Vehicles	135	61	67	74	83
	RV's	42	41	41	42	37
	H-Unit	41	30	32	34	34
<b>Total</b>		<b>218</b>	<b>132</b>	<b>140</b>	<b>150</b>	<b>154</b>

Source: San Quentin Condemned Inmate Complex Draft EIR, EDAW/DKS Associates, September 2004.

### Parking Demand of Project

Based on the results of the parking survey and the SQSP employment at the time of the survey (based on the trip generation projections - **Table 5** and the parking utilization survey conducted at this site, see **Table 13**), it is estimated that the peak parking demand is a total of approximately one space for every 3.7 employees. On a typical weekday or weekend, the addition of 75 new employees would generate a need for an additional 13 parking spaces during the weekday AM peak hour, 15 parking spaces during the weekday midday peak hour, 17 parking spaces during the PM peak hour, and 20 during the weekend midday peak hour.

Based on the available parking supply and the relatively small additional demand, it is anticipated that the parking needs of the project would be accommodated in existing parking lots at SQSP. No parking impacts are anticipated.

### 7.7 Cumulative Daily Traffic Volumes

The City of Larkspur requires analysis of average daily traffic (ADT) as part of a traffic impact study. For information purposes only and as part of the SQSP traffic study, daily traffic volumes for the roadway segments along Sir Francis Drake Boulevard were derived based on the existing PM peak hour traffic volumes as well as for the existing plus approved plus CIC project traffic volumes. The PM peak hour traffic volumes represents an estimated 10 percent of the daily traffic for the Existing and Background Scenarios, thus, the sum of the eastbound and westbound approach volumes was divided by 0.10 to estimate the daily traffic volumes. **Table 25** shows the percentage increase in traffic volume along Sir Francis Drake Boulevard.

As a conservative estimate, daily trip generation from the proposed CHSC facility is based the total number of new employees. As described previously, the new CHSC is anticipated to create 75 new employees with 25 employees for each of the three typical shifts. If each of the 75 employees were to make a trip to the project site in individual cars, 150 daily trips would be created. The daily trips were assigned to the roadway network assuming the same trip distribution patterns shown previously in Figure 9. No significant impacts to the daily traffic volumes are anticipated.

### 7.8 Cumulative Routes of Regional Significance

Because the proposed project would generate less than 100 PM peak hour trips, a CMP analysis is not required, and the following is provided for informational purposes only. The 2005 Marin County Congestion Management Program Plan specifies that an increase of traffic greater than one percent of the capacity would result in a significant impact. The current two-way capacity of Interstate 580 and US 101 is approximately 9,000 and 13,500 vehicles per day, respectively. Therefore one percent of the respective capacities would be approximately 90 and 135 vehicles. Because the proposed project would generate approximately three trips during the AM and PM peak hours, and less than 30 hourly trips during off peak hours, significant peak hour impacts on CMP roadways during the Cumulative plus Project scenario are not anticipated.

**Table 25 Cumulative Daily Traffic Conditions – Sir Francis Drake Boulevard**

Roadway Segment	Direction	Existing	Cumulative	Two-Way Daily Traffic Volumes			Percent Increase
				Existing	Cumulative	Cumulative + Project	
West of U.S. 101 SB off-ramp	EB	10,390	10,960	30,960	32,380	32,382	< 0.1 %
	WB	20,570	21,420				
East of U.S. 101/NB on/off ramp	EB	14,490	15,660	34,350	36,270	36,279	< 0.1 %
	WB	19,860	20,610				
West of Larkspur Landing Circle (West)	EB	13,860	15,030	31,840	33,470	33,479	< 0.1 %
	WB	17,980	18,440				
West of Larkspur Landing Circle (East)	EB	12,990	13,650	25,030	26,100	26,109	< 0.1 %
	WB	12,040	12,450				
West of the West Gate Entrance	EB	13,630	14,650	24,950	26,880	26,889	< 0.1 %
	WB	11,320	12,230				
West of Andersen Drive	EB	14,590	15,610	24,270	26,230	26,239	< 0.1 %
	WB	9,680	10,620				

### Average Daily Traffic

Based on input from Caltrans Staff, an analysis of daily traffic was required as part of this study. Average Daily Traffic on State highway facilities including mainline and ramp segments was obtained from Caltrans. Estimates of the ADT for the Cumulative Scenario is based on growth patterns calculated as a result of the addition of planned and approved projects (including the CIC project). Based on the Cumulative Scenario, it is estimated that the addition of approved projects would increase existing traffic in the area by approximately six percent. Similar to the ADT estimates of Sir Francis Drake Boulevard, a conservative estimate of 150 daily project trips were used assuming each of the new employees were to drive individually to and from the project site. For information purposes only, the estimated increase related to the proposed project as is described in **Table 26**. The minimal increase in daily traffic on Caltrans facilities is not anticipated to significantly affect the cumulative operating conditions.

**Table 26     Cumulative Daily Traffic Conditions – Caltrans Facilities**

Roadway Segment		Average Daily Traffic Volumes				Percent Increase
Route	Location	Existing	Cumulative	Added Project Trips	Cumulative + Project	
<b>Mainline Segments</b>						
US 101	South of Sir Francis Drake	170,000	180,200	8	180,208	< 0.1%
I-580	San Rafael Bridge	77,000	81,620	110	81,730	0.1%
I-580	West of Sir Francis Drake	80,000	84,800	32	84,832	< 0.1%
<b>Ramp Segments</b>						
US 101	SB On Ramp from Sir Francis Drake	28,500	30,210	4	30,214	< 0.1%
US 101	NB Off Ramp from Sir Francis Drake	32,500	34,450	4	34,454	< 0.1%
I-580	WB off to Main St. (San Quentin)	1,750	1,855	55	1,910	3.0%
I-580	WB on from Main St. (San Quentin)	3,600	3,816	16	3,832	0.4%
I-580	EB off to Main St. (San Quentin)	2,600	2,756	16	2,772	0.6%
I-580	EB on from Main St. (San Quentin)	1,650	1,749	55	1,804	3.1%

Source: Caltrans, 2004 and 2005

## 7.9 Cumulative Construction Impacts

Based on input from CDCR Staff, construction of the new health care facility would likely occur in conjunction with the approved Condemned Inmate Complex expansion project.

### Construction Related Truck Traffic

As described previously in Section 5.13, construction period trip generation would be limited to 90 vehicles an hour during the peak periods for the nearby freeway segments, which is based on an increase in traffic equal to one percent of the peak-hour capacity on nearby freeway segments.

At the study intersections, the threshold for significant impacts would be greater than 90 vehicles during the AM peak period. During the PM peak period, the threshold for significant impact would be 74 vehicles per hour prior to triggering a significant impact at the intersection of Sir Francis Drake Boulevard and Andersen Drive.

The estimated number of truck trips is based on the quantity of material which is calculated based on 400 cubic yards (cy) of material demolished per day; which results in approximately 20 truck trips per day. The quantity of building demolition is approximately 5,000 cy, demolition of the retaining wall is less than 2,000 cy, and between 2,000 and 3,000 cy combined of earthwork hauled out and brought in. Based on this amount totaling almost 10,000 cy, the total number of trucks needed would be 500 trucks during a period of 25 days, during the peak construction periods.

The 20 truck trips per day would likely be spread throughout the day and it is anticipated that the total number of peak hour trips (combined inbound and outbound) would be less than 10 vehicles. Based on the detailed operating conditions (Appendix B), traffic traveling along Sir Francis Drake Boulevard would not experience any delay at the intersection of the West Gate Entrance. Vehicles traveling westbound, making a left-turn into the SQSP West Gate would experience average delays less than 15 seconds (LOS B or better) during each of the analysis scenarios. Vehicles exiting the West Gate, making left turns onto the westbound direction of Sir Francis Drake Boulevard typically experience the most delays, with operating conditions for this movement at LOS F for each of the analysis scenarios. Vehicles exiting the West Gate and turning right onto eastbound Sir Francis Drake Boulevard have a merge lane and delays are typically negligible.

Due to the low amount construction traffic during each of the peak hours (less than 10 vehicles), construction related truck traffic impacts are anticipated to be less than significant. Any increased delays would be experienced by the exiting construction vehicles or trips related to the project site only, and no increased delays are anticipated for the general traffic flow. No significant construction impacts to the existing roadway network are anticipated.

As construction of this project would occur in conjunction with construction of the previously approved SQSP CIC facility, it is assumed that the conditions of approval for that project (related to peak hour traffic limitations) would apply to this project as well.

### **Construction Related Employee Trips**

Because of the proposed construction schedule, construction of the CHSC project may occur concurrently with the construction SQSP CIC project. As described in the CTMP plan, the cumulative number of construction-related trips from both projects would be limited to 90 trips per hour during the peak periods on the nearby freeway segments. The addition of approximately 74 vehicles during the PM peak period would trigger a significant intersection impact at the intersection of Sir Francis Drake Boulevard and Andersen Drive. Several travel demand management programs described in the CTMP plan such as off-site employee parking with shuttle service, restricted arrival and departure times, right-turn only restrictions for vehicle exiting the site, and other recommendations would all be applicable for both the CIC and the CHSC projects.

Based on the recommendations in the SQSP CTMP, employee vehicles entering or exiting the site at the start and end of the work shifts would be required to do so during the non-peak hours in an effort to not exceed the peak hour vehicle limits. Based on the currently available information for the CHSC construction, construction worker trips to and from the site at the

start and end of the work shifts are not anticipated during the peak hours. Construction related traffic during the AM and PM peak periods is anticipated to be limited to construction related truck or material delivery trips.

Regardless if construction activities on both projects overlap, and it is recommended that construction of CHSC building follow the recommendations from the CTMP. The total number of potential peak-hour construction-related trips associated with the proposed project by itself (149) would exceed the threshold of 74 vehicles per peak-hour.

## 8.0 CONCLUSION

The proposed Central Health Services Center would consist of a 115,000 square foot (sf) building, which would replace the existing "Building 22" within the State Prison. The new health care center would result in approximately 75 new employees with up to 25 employees for each of the three primary work-shifts.

Eight study intersections were analyzed as part of this traffic analysis, none of which would experience any significant operation impacts. An operational analysis of the study intersections was conducted for the AM, midday, and PM peak hours during a typical weekday, and for the midday peak hour for a typical weekend. A Background scenario was presented to estimate operating conditions at the time the proposed project would open. The addition of background related traffic would result in minimal changes to the traffic volumes, and the operating conditions at the study intersections would remain approximately the same.

Two unsignalized intersections currently operate at LOS F for the worst (minor) approaches; however the addition of project related traffic would not result in any significant impacts. Similarly, the amount of net new peak hour project trips generated would not trigger any significant impacts on Marin County CMP roadway segments.

The proposed project is not anticipated to affect or impact the current transit operations or bicycle and pedestrian facilities. During periods of construction, the proposed project would be developed in coordination with the already approved Condemned Inmate Complex (CIC) project, and would not result in any significant construction impacts.

A cumulative scenario was analyzed which considers the addition of traffic from the CIC project onto the Background conditions traffic volumes. The addition of project related trips to the cumulative scenario would not trigger any potentially significant impacts. For both the project and the Cumulative plus Project scenarios, the amount of permanent traffic added to the study intersections and roadway segments would not trigger the thresholds for significant traffic impacts.

# **San Quentin State Prison Central Health Services Center**

## **Transportation Impact Analysis**

*Final Report*

Prepared for

**EDAW, Inc.**

and

**California Department of Corrections and Rehabilitation**

*By*

***DKS Associates***

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May 25, 2007

## **APPENDICES**

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SQSP Central Health Services Center  
Transportation Impacts Analysis

## **APPENDIX A**

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SQSP Central Health Services Center TIA  
Turning Movement Counts

**Existing Turning Movement Counts  
AM Peak Hour**

# WILTEC

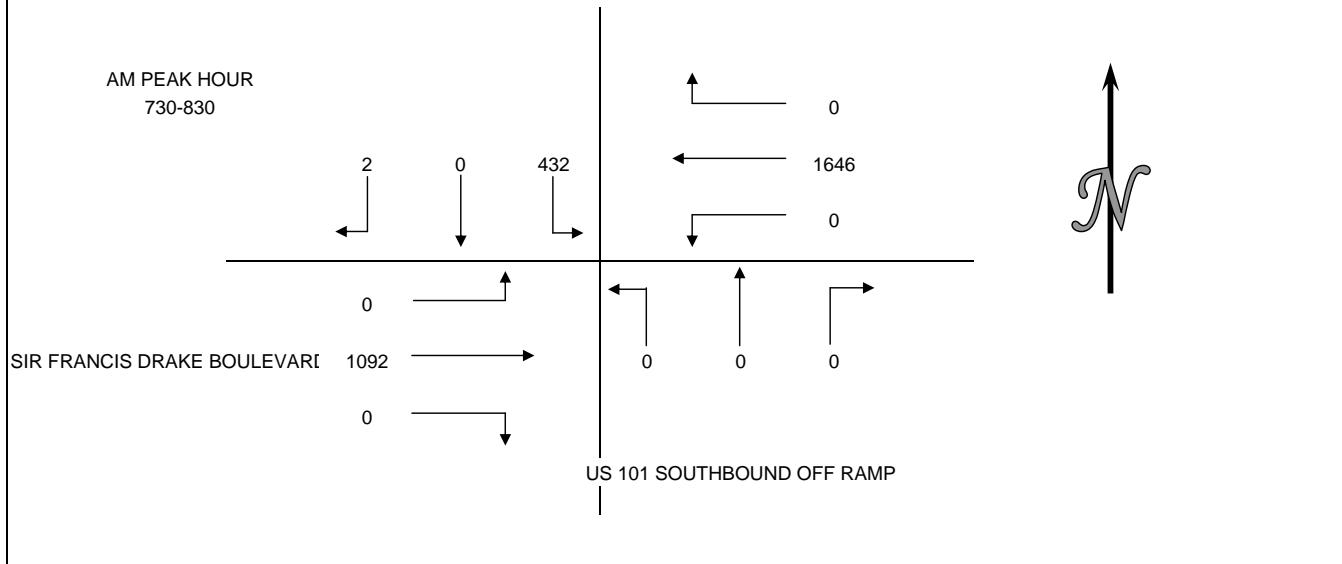
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S US 101 SOUTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	103	0	340	0	0	0	0	0	179	0	622
715-730	0	0	92	0	365	0	0	0	0	0	203	0	660
730-745	1	0	128	0	415	0	0	0	0	0	260	0	804
745-800	1	0	88	0	399	0	0	0	0	0	279	0	767
800-815	0	0	124	0	432	0	0	0	0	0	291	0	847
815-830	0	0	92	0	400	0	0	0	0	0	262	0	754
830-845	0	0	86	0	399	0	0	0	0	0	235	0	720
845-900	1	0	105	0	414	0	0	0	0	0	259	0	779

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	2	0	411	0	1519	0	0	0	0	0	921	0	2853
715-815	2	0	432	0	1611	0	0	0	0	0	1033	0	3078
730-830	2	0	432	0	1646	0	0	0	0	0	1092	0	3172
745-845	1	0	390	0	1630	0	0	0	0	0	1067	0	3088
800-900	1	0	407	0	1645	0	0	0	0	0	1047	0	3100



## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S US 101 NORTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	32	331	0	133	41	12	0	150	84	783
715-730	0	0	0	30	341	0	161	45	1	0	173	100	851
730-745	0	0	0	42	385	0	190	48	7	0	204	125	1001
745-800	0	0	0	49	403	0	197	58	16	0	199	157	1079
800-815	0	0	0	42	372	0	223	39	0	0	185	168	1029
815-830	0	0	0	64	330	0	236	56	0	0	162	158	1006
830-845	0	0	0	44	357	0	207	40	0	0	130	116	894
845-900	0	0	0	49	390	0	171	44	0	0	111	90	855
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	153	1460	0	681	192	36	0	726	466	3714
715-815	0	0	0	163	1501	0	771	190	24	0	761	550	3960
730-830	0	0	0	197	1490	0	846	201	23	0	750	608	4115
745-845	0	0	0	199	1462	0	863	193	16	0	676	599	4008
800-900	0	0	0	199	1449	0	837	179	0	0	588	532	3784

AM PEAK HOUR  
730-830

SIR FRANCIS DRAKE BOULEVARD

US 101 NORTHBOUND OFF RAMP

# WILTEC

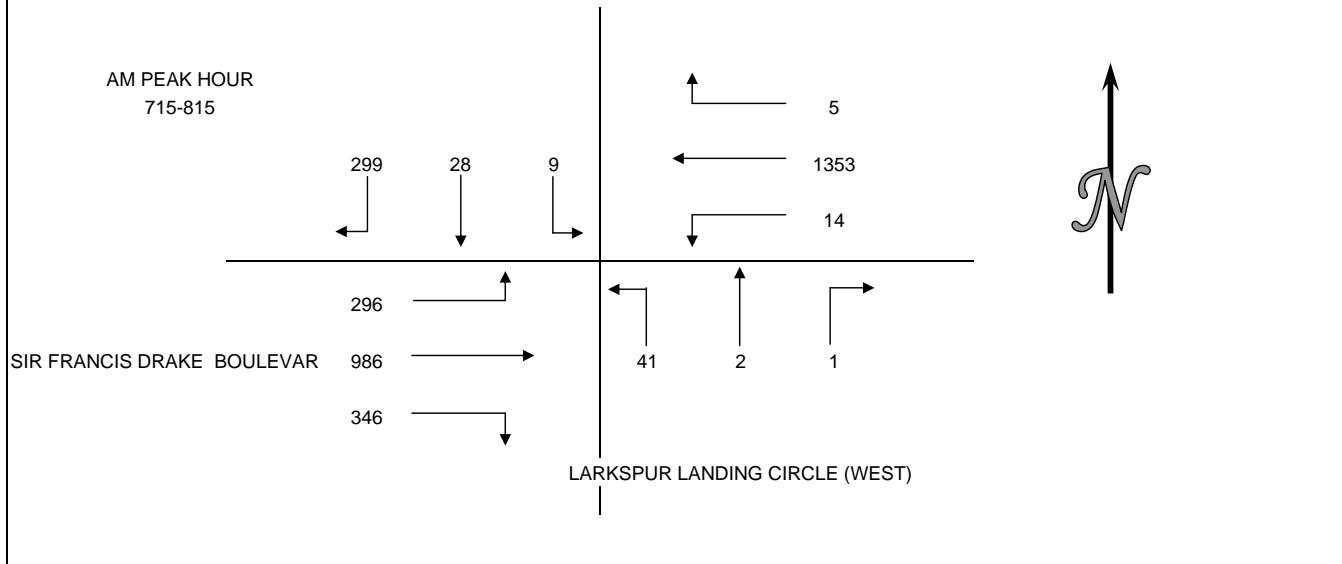
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (WEST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	50	4	0	2	279	1	2	1	26	103	216	69	753
715-730	60	2	3	0	321	1	0	1	10	78	255	72	803
730-745	78	12	0	0	338	0	0	1	19	103	236	58	845
745-800	73	4	2	0	341	2	1	0	7	88	260	80	858
800-815	88	10	4	5	353	11	0	0	5	77	235	86	874
815-830	47	0	0	3	323	0	0	0	10	29	233	74	719
830-845	72	0	2	0	373	2	0	0	1	19	201	91	761
845-900	63	0	2	4	336	2	0	1	4	33	197	59	701

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	261	22	5	2	1279	4	3	3	62	372	967	279	3259
715-815	299	28	9	5	1353	14	1	2	41	346	986	296	3380
730-830	286	26	6	8	1355	13	1	1	41	297	964	298	3296
745-845	280	14	8	8	1390	15	1	0	23	213	929	331	3212
800-900	270	10	8	12	1385	15	0	1	20	158	866	310	3055



# WILTEC

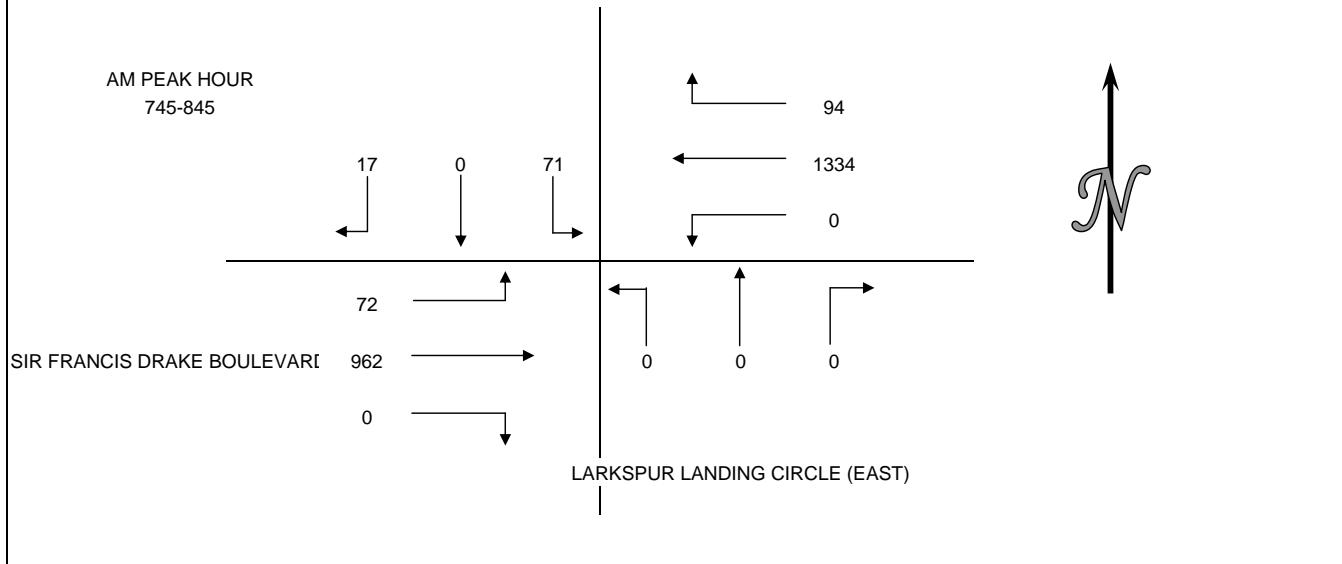
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (EAST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	6	0	15	19	339	0	0	0	0	0	173	29	581
715-730	6	0	17	31	319	0	0	0	0	0	203	15	591
730-745	3	0	18	24	340	0	0	0	0	0	222	17	624
745-800	8	0	19	29	369	0	0	0	0	0	248	16	689
800-815	3	0	12	31	341	0	0	0	0	0	223	13	623
815-830	2	0	21	19	295	0	0	0	0	0	247	23	607
830-845	4	0	19	15	329	0	0	0	0	0	244	20	631
845-900	8	0	9	30	353	0	0	0	0	0	251	30	681

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	23	0	69	103	1367	0	0	0	0	0	846	77	2485
715-815	20	0	66	115	1369	0	0	0	0	0	896	61	2527
730-830	16	0	70	103	1345	0	0	0	0	0	940	69	2543
745-845	17	0	71	94	1334	0	0	0	0	0	962	72	2550
800-900	17	0	61	95	1318	0	0	0	0	0	965	86	2542

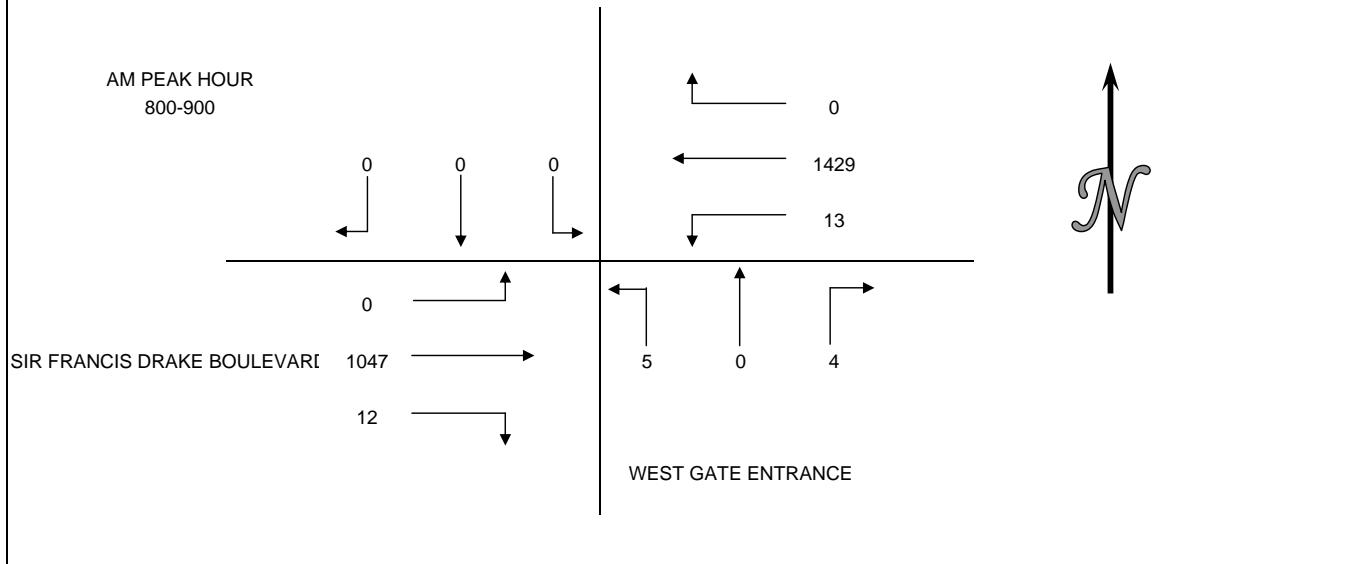


## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S WEST GATE ENTRANCE  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
700-715	0	0	0	0	318	13	2	0	0	5	187	0	525	
715-730	0	0	0	0	356	7	2	0	2	5	210	0	582	
730-745	0	0	0	0	332	1	0	0	1	4	253	0	591	
745-800	0	0	0	0	363	0	0	0	2	1	224	0	590	
800-815	0	0	0	0	368	4	0	0	1	2	263	0	638	
815-830	0	0	0	0	366	1	0	0	2	2	257	0	628	
830-845	0	0	0	0	328	3	2	0	1	2	280	0	616	
845-900	0	0	0	0	367	5	2	0	1	6	247	0	628	

HOUR TOTALS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
700-800	0	0	0	0	1369	21	4	0	5	15	874	0	2288	
715-815	0	0	0	0	1419	12	2	0	6	12	950	0	2401	
730-830	0	0	0	0	1429	6	0	0	6	9	997	0	2447	
745-845	0	0	0	0	1425	8	2	0	6	7	1024	0	2472	
800-900	0	0	0	0	1429	13	4	0	5	12	1047	0	2510	



WILTEC

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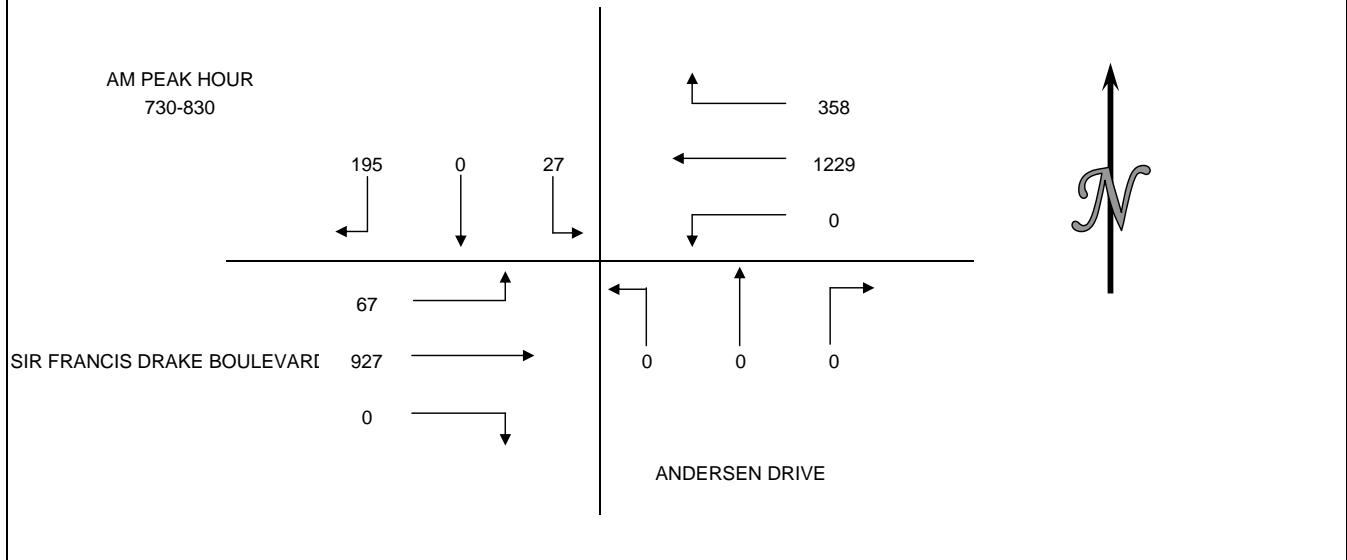
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
DATE: TUESDAY JANUARY 30, 2007  
PERIODS: 7:00 AM TO 9:00 AM  
INTERSECTION: N/S ANDERSEN DRIVE  
                  E/W SIR FRANCIS DRAKE BOULEVARD  
CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	28	0	4	57	278	0	0	0	0	0	183	13	563
715-730	33	0	5	71	320	0	0	0	0	0	215	11	655
730-745	44	0	6	81	336	0	0	0	0	0	227	18	712
745-800	52	0	4	94	308	0	0	0	0	0	237	21	716
800-815	53	0	5	90	290	0	0	0	0	0	209	18	665
815-830	46	0	12	93	295	0	0	0	0	0	254	10	710
830-845	39	0	4	58	276	0	0	0	0	0	208	15	600
845-900	26	0	7	71	310	0	0	0	0	0	181	23	618

Hour Totals														
Period	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	Total	
700-800	157	0	19	303	1242	0	0	0	0	0	862	63	2646	
715-815	182	0	20	336	1254	0	0	0	0	0	888	68	2748	
730-830	195	0	27	358	1229	0	0	0	0	0	927	67	2803	
745-845	190	0	25	335	1169	0	0	0	0	0	908	64	2691	
800-900	164	0	28	312	1171	0	0	0	0	0	852	66	2593	



# WILTEC

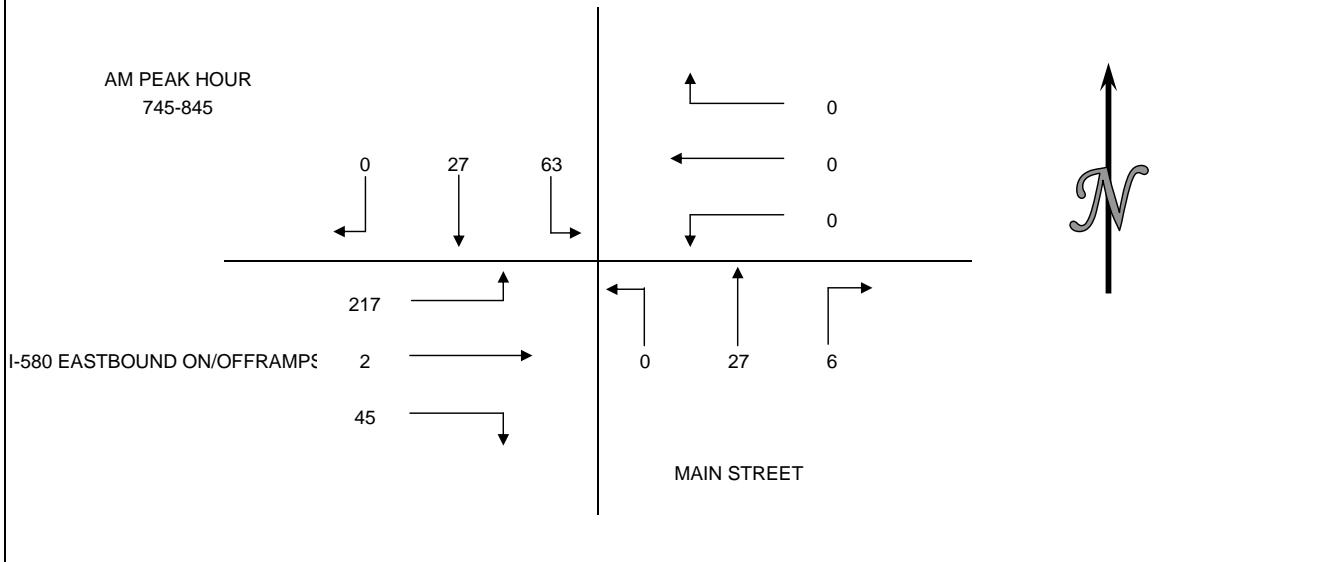
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 EASTBOUND ON/OFFRAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	12	9	0	0	0	5	8	0	10	3	26	73
715-730	0	15	9	0	0	0	2	3	0	6	0	40	75
730-745	0	6	12	0	0	0	0	7	0	10	1	40	76
745-800	0	12	21	0	0	0	1	8	0	16	0	56	114
800-815	0	9	23	0	0	0	4	11	0	14	1	48	110
815-830	0	3	7	0	0	0	1	5	0	7	1	55	79
830-845	0	3	12	0	0	0	0	3	0	8	0	58	84
845-900	0	11	16	0	0	0	0	3	0	5	0	76	111

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	45	51	0	0	0	8	26	0	42	4	162	338
715-815	0	42	65	0	0	0	7	29	0	46	2	184	375
730-830	0	30	63	0	0	0	6	31	0	47	3	199	379
745-845	0	27	63	0	0	0	6	27	0	45	2	217	387
800-900	0	26	58	0	0	0	5	22	0	34	2	237	384



# WILTEC

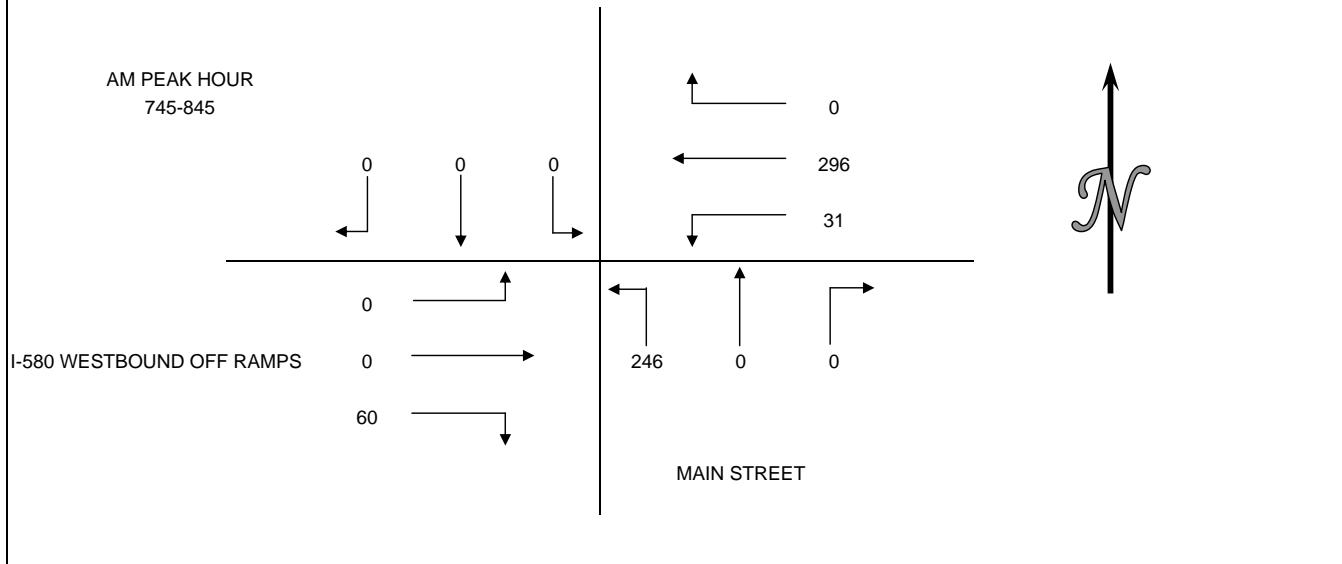
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIODS: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 WESTBOUND OFF RAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	0	20	4	0	0	16	4	0	0	44
715-730	0	0	0	0	59	18	0	0	46	12	0	0	135
730-745	0	0	0	0	53	7	0	0	52	12	0	0	124
745-800	0	0	0	0	81	15	0	0	61	15	0	0	172
800-815	0	0	0	0	69	8	0	0	44	18	0	0	139
815-830	0	0	0	0	68	5	0	0	73	14	0	0	160
830-845	0	0	0	0	78	3	0	0	68	13	0	0	162
845-900	0	0	0	0	65	7	0	0	66	16	0	0	154

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	0	0	0	0	213	44	0	0	175	43	0	0	475
715-815	0	0	0	0	262	48	0	0	203	57	0	0	570
730-830	0	0	0	0	271	35	0	0	230	59	0	0	595
745-845	0	0	0	0	296	31	0	0	246	60	0	0	633
800-900	0	0	0	0	280	23	0	0	251	61	0	0	615



**Existing Turning Movement Counts  
Midday Peak Hour**

# WILTEC

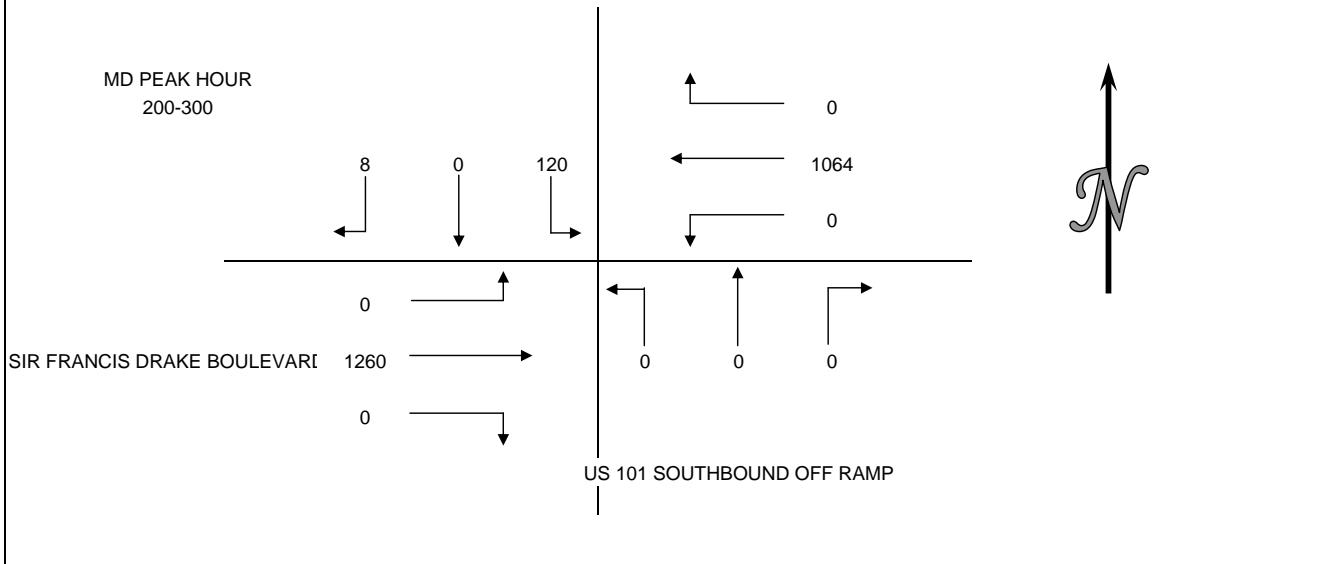
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S US 101 SOUTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	2	0	55	0	260	0	0	0	0	0	323	0	640
115-130	2	0	62	0	249	0	0	0	0	0	311	0	624
130-145	0	0	38	0	219	0	0	0	0	0	290	0	547
145-200	0	0	28	0	231	0	0	0	0	0	277	0	536
200-215	2	0	32	0	252	0	0	0	0	0	306	0	592
215-230	1	0	21	0	218	0	0	0	0	0	300	0	540
230-245	4	0	31	0	279	0	0	0	0	0	328	0	642
245-300	1	0	36	0	315	0	0	0	0	0	326	0	678

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	4	0	183	0	959	0	0	0	0	0	1201	0	2347
115-215	4	0	160	0	951	0	0	0	0	0	1184	0	2299
130-230	3	0	119	0	920	0	0	0	0	0	1173	0	2215
145-245	7	0	112	0	980	0	0	0	0	0	1211	0	2310
200-300	8	0	120	0	1064	0	0	0	0	0	1260	0	2452



WILTEC

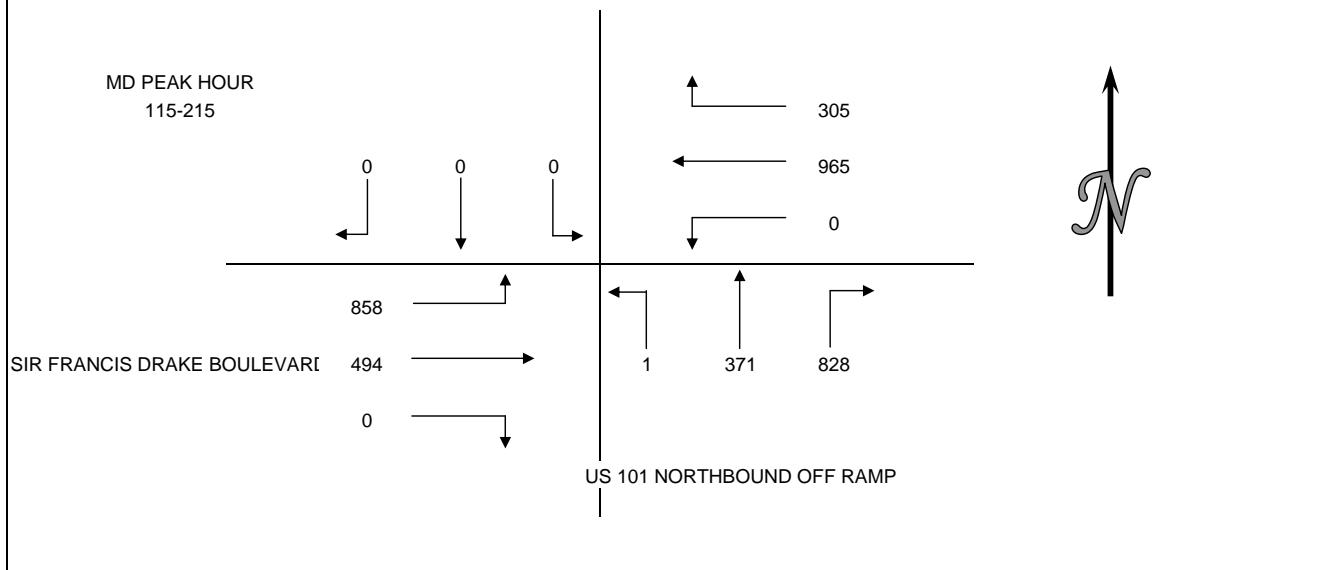
Phone: (626) 564-1944 Fax: (626) 564-0969

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
DATE: TUESDAY JANUARY 30, 2007  
PERIOD: 1:00 PM TO 3:00 PM  
INTERSECTION: N/S US 101 NORTHBOUND OFF RAMP  
E/W SIR FRANCIS DRAKE BOULEVARD

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	0	0	0	78	232	0	166	90	0	0	133	186	885
115-130	0	0	0	93	256	0	185	101	0	0	162	218	1015
130-145	0	0	0	73	228	0	202	94	0	0	115	175	887
145-200	0	0	0	57	205	0	239	84	0	0	127	214	926
200-215	0	0	0	82	276	0	202	92	1	0	90	251	994
215-230	0	0	0	73	249	0	178	82	0	0	107	226	915
230-245	0	0	0	53	232	0	148	68	0	0	113	170	784
245-300	0	0	0	42	293	0	168	79	0	0	123	132	837
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	0	0	0	301	921	0	792	369	0	0	537	793	3713
115-215	0	0	0	305	965	0	828	371	1	0	494	858	3822
130-230	0	0	0	285	958	0	821	352	1	0	439	866	3722
145-245	0	0	0	265	962	0	767	326	1	0	437	861	3619
200-300	0	0	0	250	1050	0	696	321	1	0	433	779	3530



# WILTEC

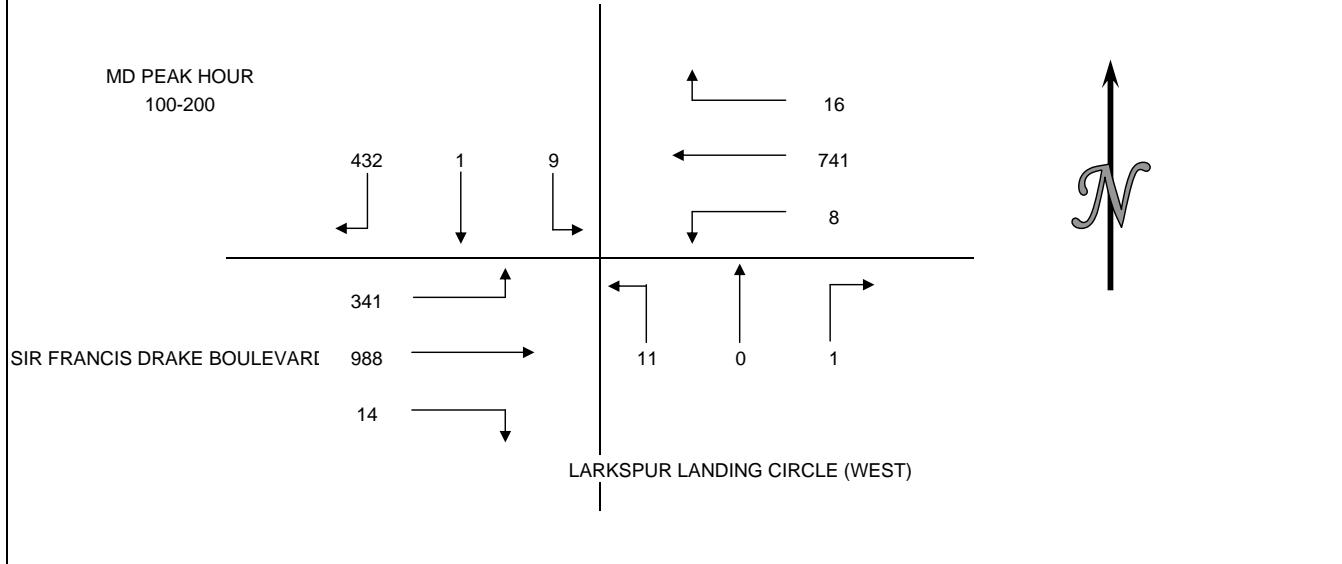
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (WEST)  
 E/W SIR FRANCIS DRAKE BOULEVARD

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	114	0	2	3	177	1	1	0	8	1	262	92	661
115-130	105	0	1	4	163	2	0	0	0	2	238	83	598
130-145	110	0	3	6	185	1	0	0	0	7	257	78	647
145-200	103	1	3	3	216	4	0	0	3	4	231	88	656
200-215	95	2	2	7	199	0	0	1	5	0	209	88	608
215-230	102	0	2	8	212	1	0	0	1	0	215	67	608
230-245	95	0	3	7	180	1	0	0	5	0	230	77	598
245-300	88	0	4	3	218	1	0	0	4	0	246	67	631

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	432	1	9	16	741	8	1	0	11	14	988	341	2562
115-215	413	3	9	20	763	7	0	1	8	13	935	337	2509
130-230	410	3	10	24	812	6	0	1	9	11	912	321	2519
145-245	395	3	10	25	807	6	0	1	14	4	885	320	2470
200-300	380	2	11	25	809	3	0	1	15	0	900	299	2445



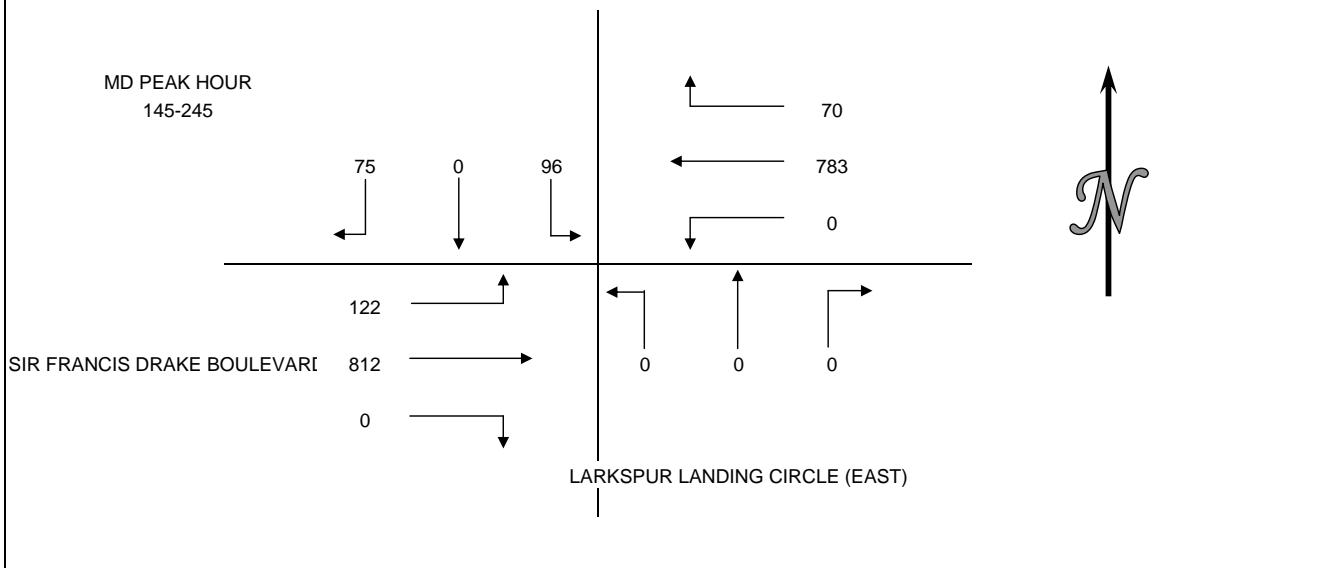
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (EAST)  
 E/W SIR FRANCIS DRAKE BOULEVARD

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	26	0	29	21	153	0	0	0	0	0	187	36	452
115-130	18	0	28	20	160	0	0	0	0	0	177	29	432
130-145	15	0	19	19	190	0	0	0	0	0	212	22	477
145-200	12	0	16	13	197	0	0	0	0	0	202	31	471
200-215	22	0	31	22	214	0	0	0	0	0	231	42	562
215-230	19	0	24	16	174	0	0	0	0	0	185	22	440
230-245	22	0	25	19	198	0	0	0	0	0	194	27	485
245-300	14	0	20	12	180	0	0	0	0	0	201	38	465
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	71	0	92	73	700	0	0	0	0	0	778	118	1832
115-215	67	0	94	74	761	0	0	0	0	0	822	124	1942
130-230	68	0	90	70	775	0	0	0	0	0	830	117	1950
145-245	75	0	96	70	783	0	0	0	0	0	812	122	1958
200-300	77	0	100	69	766	0	0	0	0	0	811	129	1952



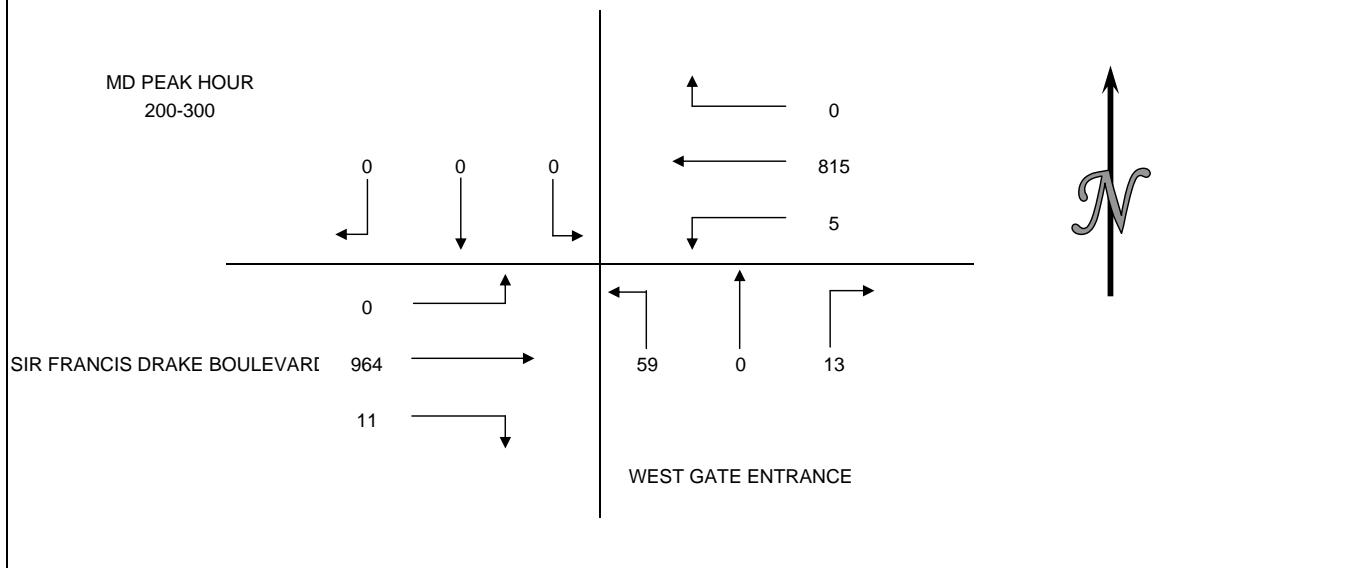
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S WEST GATE ENTRANCE  
 E/W SIR FRANCIS DRAKE BOULEVARD

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	0	0	0	0	157	3	2	0	1	3	203	0	369
115-130	0	0	0	0	175	1	5	0	11	9	205	0	406
130-145	0	0	0	0	200	6	7	0	6	9	235	0	463
145-200	0	0	0	0	187	5	6	0	8	0	206	0	412
200-215	0	0	0	0	196	2	2	0	24	3	251	0	478
215-230	0	0	0	0	179	1	4	0	10	3	232	0	429
230-245	0	0	0	0	224	2	3	0	18	1	243	0	491
245-300	0	0	0	0	216	0	4	0	7	4	238	0	469
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	0	0	0	0	719	15	20	0	26	21	849	0	1650
115-215	0	0	0	0	758	14	20	0	49	21	897	0	1759
130-230	0	0	0	0	762	14	19	0	48	15	924	0	1782
145-245	0	0	0	0	786	10	15	0	60	7	932	0	1810
200-300	0	0	0	0	815	5	13	0	59	11	964	0	1867



# WILTEC

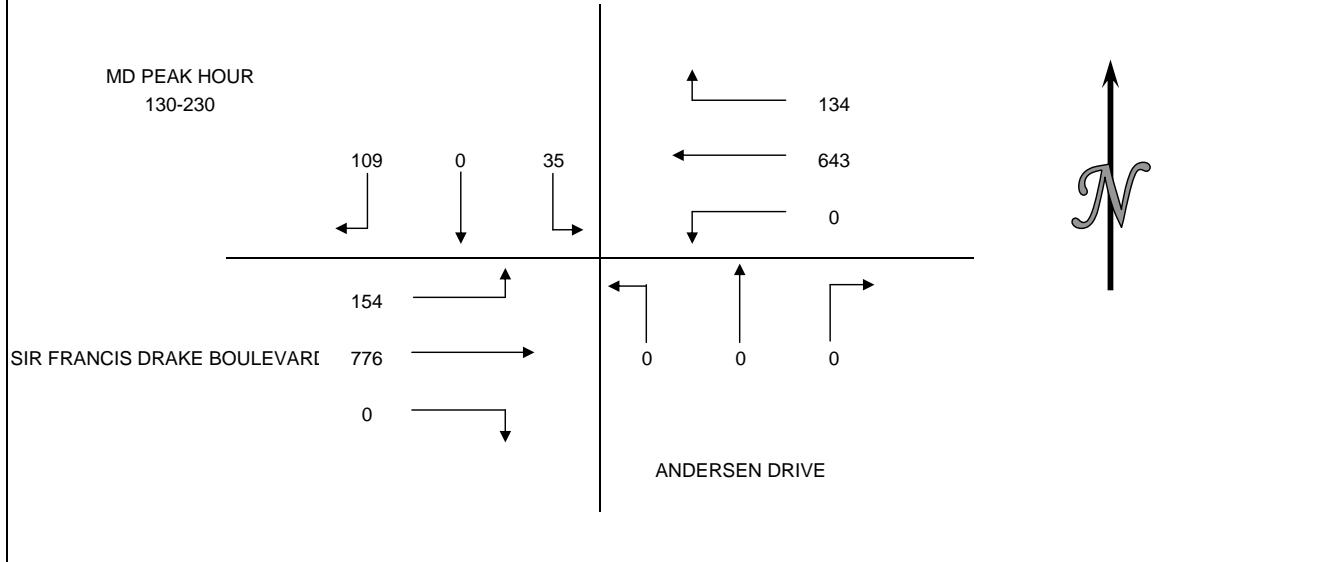
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S ANDERSEN DRIVE  
 E/W SIR FRANCIS DRAKE BOULEVARD

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	25	0	5	27	121	0	0	0	0	0	155	38	371
115-130	37	0	3	22	146	0	0	0	0	0	172	27	407
130-145	32	0	4	35	179	0	0	0	0	0	203	46	499
145-200	30	0	7	30	174	0	0	0	0	0	181	38	460
200-215	23	0	10	31	142	0	0	0	0	0	211	43	460
215-230	24	0	14	38	148	0	0	0	0	0	181	27	432
230-245	38	0	6	43	149	0	0	0	0	0	172	31	439
245-300	41	0	4	33	194	0	0	0	0	0	212	34	518

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	124	0	19	114	620	0	0	0	0	0	711	149	1737
115-215	122	0	24	118	641	0	0	0	0	0	767	154	1826
130-230	109	0	35	134	643	0	0	0	0	0	776	154	1851
145-245	115	0	37	142	613	0	0	0	0	0	745	139	1791
200-300	126	0	34	145	633	0	0	0	0	0	776	135	1849



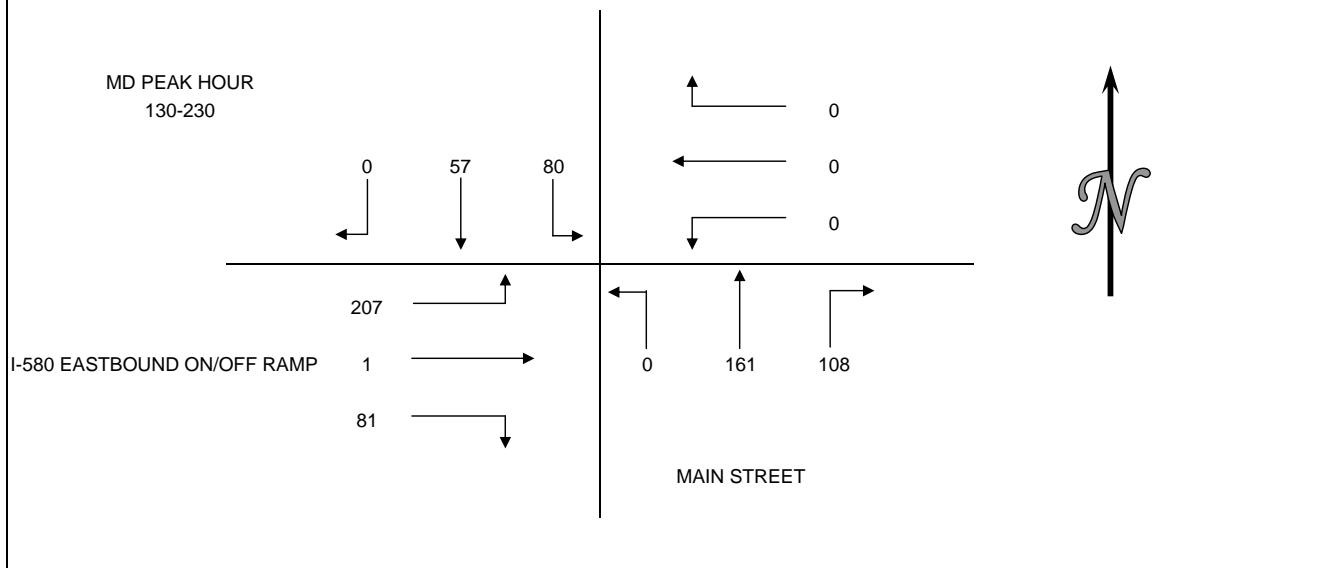
# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 EASTBOUND ON/OFF RAMPS

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	0	14	20	0	0	0	12	23	0	13	0	43	125
115-130	0	20	11	0	0	0	10	19	0	19	0	46	125
130-145	0	26	16	0	0	0	19	28	0	39	1	54	183
145-200	0	21	29	0	0	0	26	37	0	21	0	50	184
200-215	0	5	18	0	0	0	37	33	0	8	0	45	146
215-230	0	5	17	0	0	0	26	63	0	13	0	58	182
230-245	0	4	24	0	0	0	25	30	0	5	0	51	139
245-300	0	5	4	0	0	0	16	17	0	7	0	53	102
HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	0	81	76	0	0	0	67	107	0	92	1	193	617
115-215	0	72	74	0	0	0	92	117	0	87	1	195	638
130-230	0	57	80	0	0	0	108	161	0	81	1	207	695
145-245	0	35	88	0	0	0	114	163	0	47	0	204	651
200-300	0	19	63	0	0	0	104	143	0	33	0	207	569



# WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

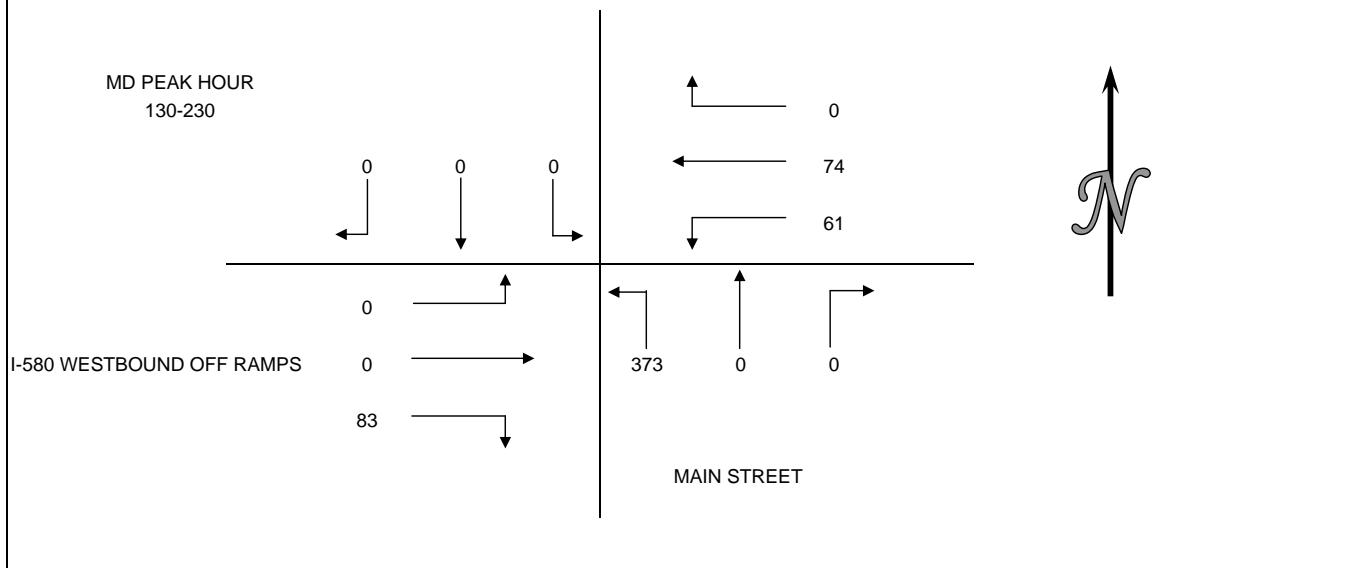
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 1:00 PM TO 3:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 WESTBOUND OFF RAMPS

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-115	0	0	0	0	18	10	0	0	66	23	0	0	117
115-130	0	0	0	0	17	15	0	0	56	16	0	0	104
130-145	0	0	0	0	23	28	0	0	88	22	0	0	161
145-200	0	0	0	0	16	27	0	0	80	24	0	0	147
200-215	0	0	0	0	21	2	0	0	106	19	0	0	148
215-230	0	0	0	0	14	4	0	0	99	18	0	0	135
230-245	0	0	0	0	24	2	0	0	80	32	0	0	138
245-300	0	0	0	0	23	2	0	0	74	26	0	0	125

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
100-200	0	0	0	0	74	80	0	0	290	85	0	0	529
115-215	0	0	0	0	77	72	0	0	330	81	0	0	560
130-230	0	0	0	0	74	61	0	0	373	83	0	0	591
145-245	0	0	0	0	75	35	0	0	365	93	0	0	568
200-300	0	0	0	0	82	10	0	0	359	95	0	0	546



**Existing Turning Movement Counts  
PM Peak Hour**

# WILTEC

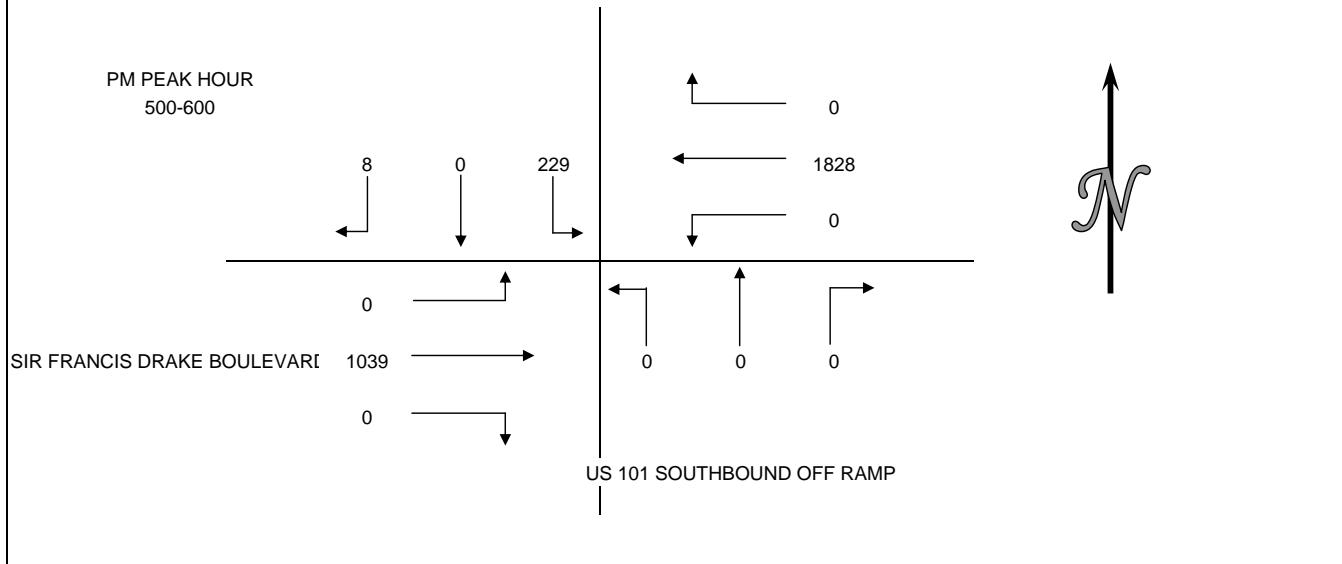
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S US 101 SOUTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	1	0	51	0	354	0	0	0	0	0	294	0	700
415-430	0	0	42	0	338	0	0	0	0	0	309	0	689
430-445	1	0	48	0	362	0	0	0	0	0	277	0	688
445-500	0	0	46	0	395	0	0	0	0	0	290	0	731
500-515	1	0	47	0	430	0	0	0	0	0	252	0	730
515-530	2	0	75	0	413	0	0	0	0	0	275	0	765
530-545	1	0	49	0	473	0	0	0	0	0	257	0	780
545-600	4	0	58	0	512	0	0	0	0	0	255	0	829

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	2	0	187	0	1449	0	0	0	0	0	1170	0	2808
415-515	2	0	183	0	1525	0	0	0	0	0	1128	0	2838
430-530	4	0	216	0	1600	0	0	0	0	0	1094	0	2914
445-545	4	0	217	0	1711	0	0	0	0	0	1074	0	3006
500-600	8	0	229	0	1828	0	0	0	0	0	1039	0	3104



# WILTEC

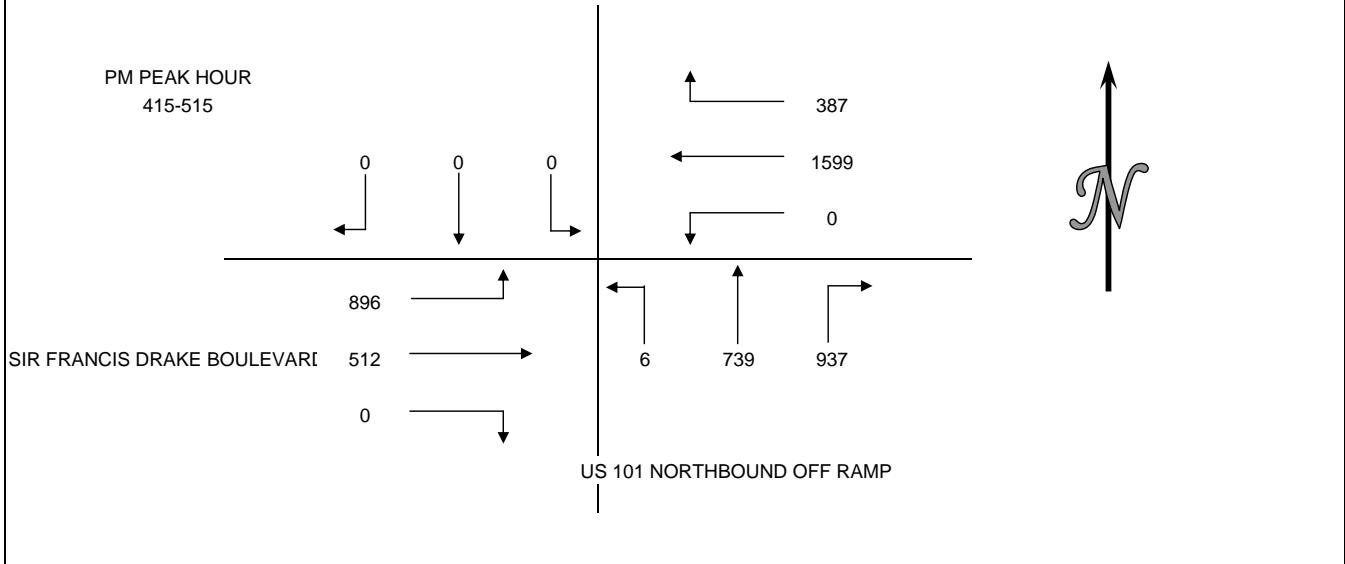
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S US 101 NORTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
400-415	0	0	0	98	296	0	207	175	0	0	115	196	1087	
415-430	0	0	0	84	368	0	230	174	0	0	132	230	1218	
430-445	0	0	0	63	372	0	221	163	4	0	121	200	1144	
445-500	0	0	0	112	418	0	261	211	1	0	130	251	1384	
500-515	0	0	0	128	441	0	225	191	1	0	129	215	1330	
515-530	0	0	0	114	380	0	195	111	0	0	98	200	1098	
530-545	0	0	0	104	368	0	176	102	0	0	111	170	1031	
545-600	0	0	0	116	342	0	153	82	0	0	129	143	965	

HOUR TOTALS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
400-500	0	0	0	357	1454	0	919	723	5	0	498	877	4833	
415-515	0	0	0	387	1599	0	937	739	6	0	512	896	5076	
430-530	0	0	0	417	1611	0	902	676	6	0	478	866	4956	
445-545	0	0	0	458	1607	0	857	615	2	0	468	836	4843	
500-600	0	0	0	462	1531	0	749	486	1	0	467	728	4424	



# WILTEC

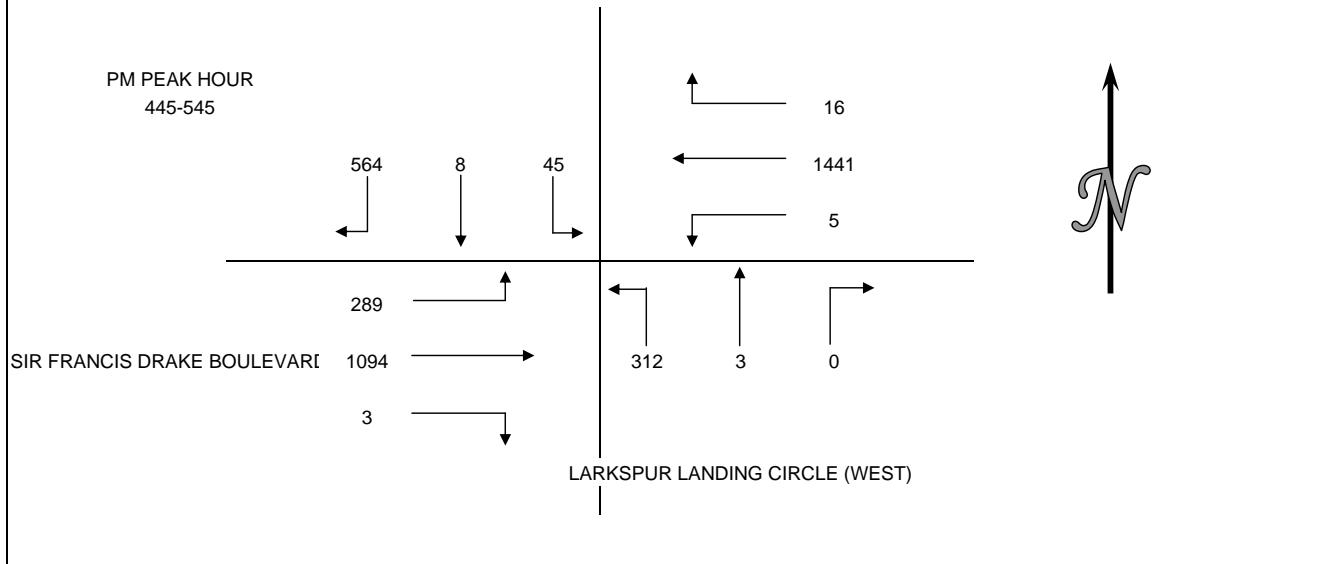
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (WEST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	111	3	5	6	262	1	1	2	106	1	276	95	869
415-430	97	1	5	1	234	0	0	0	16	0	313	74	741
430-445	119	0	-8	2	267	1	0	0	18	0	296	66	761
445-500	131	2	0	3	307	0	0	1	34	2	261	66	807
500-515	125	4	12	4	364	4	0	2	131	1	274	78	999
515-530	170	2	24	5	396	1	0	0	22	0	270	61	951
530-545	138	0	9	4	374	0	0	0	125	0	289	84	1023
545-600	118	2	5	2	315	0	0	0	46	3	241	59	791

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	458	6	2	12	1070	2	1	3	174	3	1146	301	3178
415-515	472	7	9	10	1172	5	0	3	199	3	1144	284	3308
430-530	545	8	28	14	1334	6	0	3	205	3	1101	271	3518
445-545	564	8	45	16	1441	5	0	3	312	3	1094	289	3780
500-600	551	8	50	15	1449	5	0	2	324	4	1074	282	3764



# WILTEC

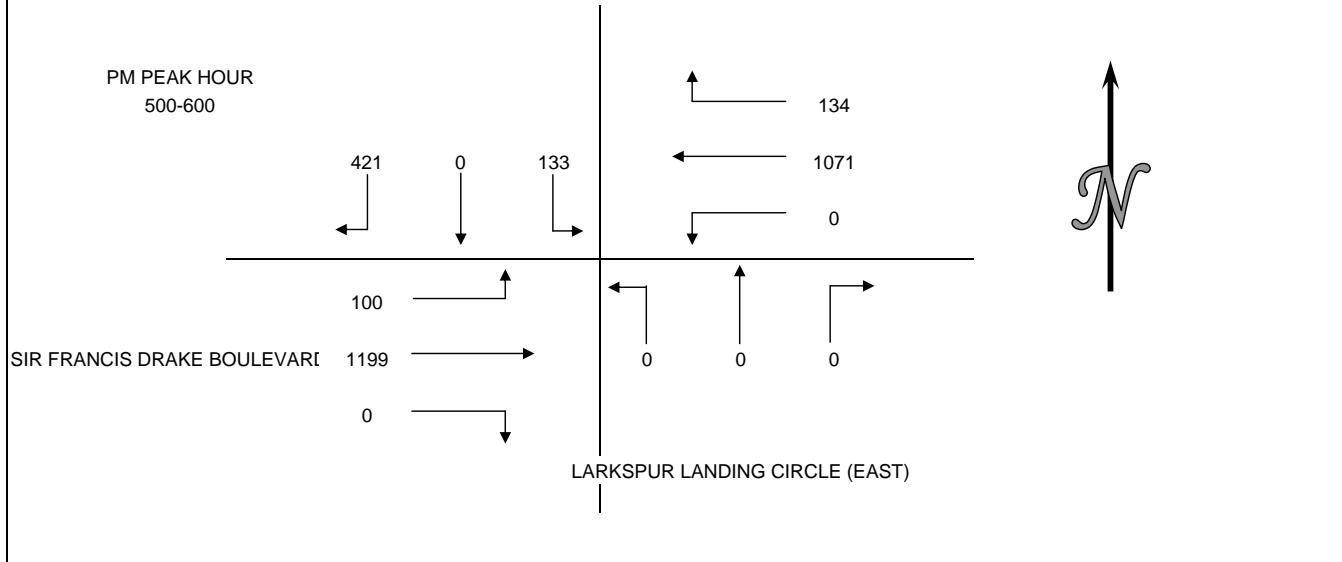
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: 0  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (EAST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	101	0	33	19	235	0	0	0	0	0	395	17	800
415-430	88	0	30	10	201	0	0	0	0	0	313	18	660
430-445	95	0	24	16	198	0	0	0	0	0	332	28	693
445-500	96	0	28	22	233	0	0	0	0	0	300	23	702
500-515	114	0	47	27	222	0	0	0	0	0	296	16	722
515-530	101	0	23	32	285	0	0	0	0	0	314	27	782
530-545	115	0	38	24	252	0	0	0	0	0	293	24	746
545-600	91	0	25	51	312	0	0	0	0	0	296	33	808

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	380	0	115	67	867	0	0	0	0	0	1340	86	2855
415-515	393	0	129	75	854	0	0	0	0	0	1241	85	2777
430-530	406	0	122	97	938	0	0	0	0	0	1242	94	2899
445-545	426	0	136	105	992	0	0	0	0	0	1203	90	2952
500-600	421	0	133	134	1071	0	0	0	0	0	1199	100	3058



# WILTEC

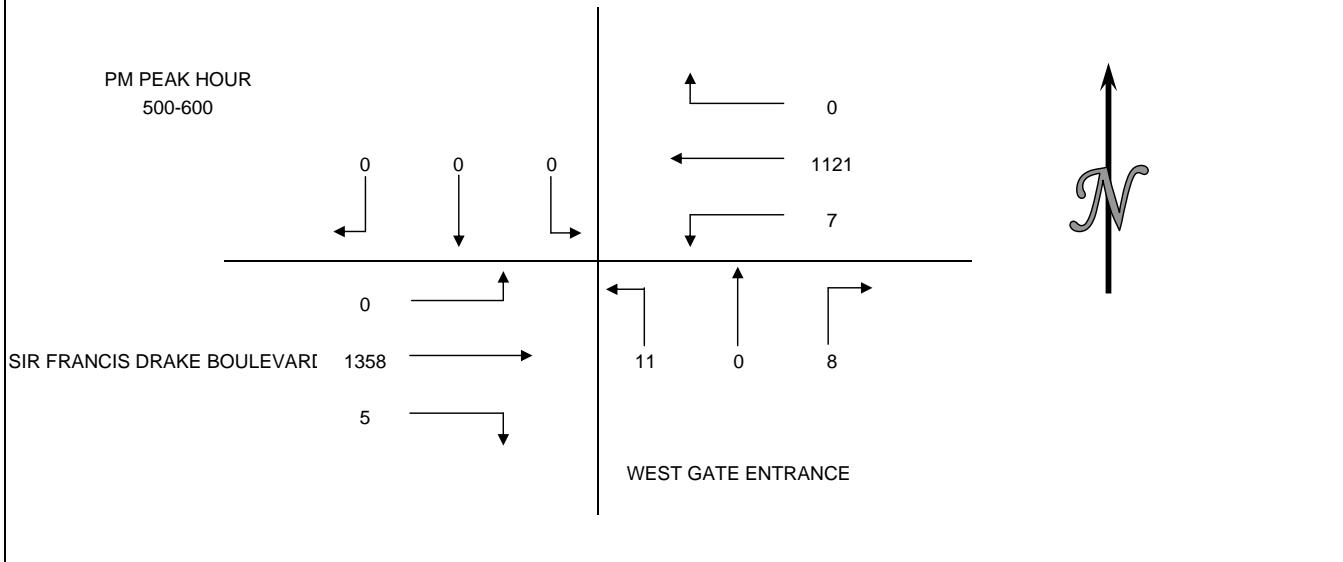
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S WEST GATE ENTRANCE  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
400-415	0	0	0	0	169	2	0	0	5	3	362	0	541	
415-430	0	0	0	0	201	1	4	0	4	3	359	0	572	
430-445	0	0	0	0	230	1	3	0	0	1	330	0	565	
445-500	0	0	0	0	236	1	1	0	1	3	330	0	572	
500-515	0	0	0	0	266	2	2	0	2	1	334	0	607	
515-530	0	0	0	0	316	3	3	0	3	1	366	0	692	
530-545	0	0	0	0	285	1	3	0	2	2	327	0	620	
545-600	0	0	0	0	254	1	0	0	4	1	331	0	591	

HOUR TOTALS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
400-500	0	0	0	0	836	5	8	0	10	10	1381	0	2250	
415-515	0	0	0	0	933	5	10	0	7	8	1353	0	2316	
430-530	0	0	0	0	1048	7	9	0	6	6	1360	0	2436	
445-545	0	0	0	0	1103	7	9	0	8	7	1357	0	2491	
500-600	0	0	0	0	1121	7	8	0	11	5	1358	0	2510	



# WILTEC

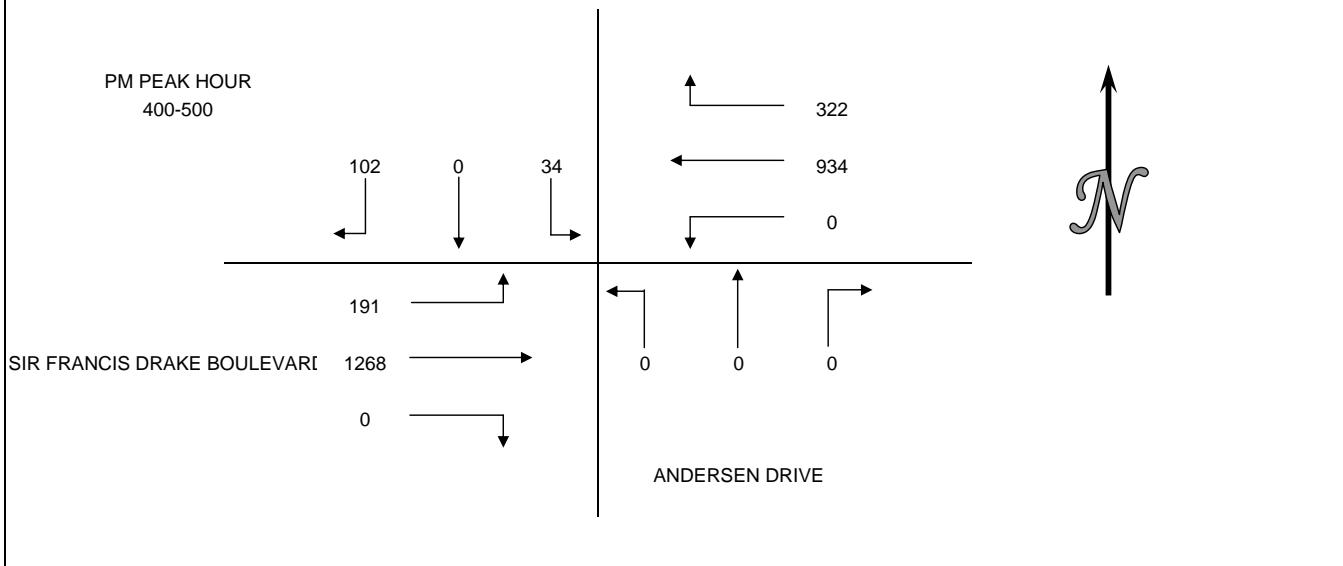
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S ANDERSEN DRIVE  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	36	0	12	96	256	0	0	0	0	0	341	57	798
415-430	31	0	8	75	240	0	0	0	0	0	335	54	743
430-445	21	0	6	86	220	0	0	0	0	0	310	37	680
445-500	14	0	8	65	218	0	0	0	0	0	282	43	630
500-515	25	0	17	93	264	0	0	0	0	0	304	66	769
515-530	39	0	20	74	235	0	0	0	0	0	282	35	685
530-545	32	0	11	92	265	0	0	0	0	0	291	42	733
545-600	20	0	6	70	248	0	0	0	0	0	255	28	627

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	102	0	34	322	934	0	0	0	0	0	1268	191	2851
415-515	91	0	39	319	942	0	0	0	0	0	1231	200	2822
430-530	99	0	51	318	937	0	0	0	0	0	1178	181	2764
445-545	110	0	56	324	982	0	0	0	0	0	1159	186	2817
500-600	116	0	54	329	1012	0	0	0	0	0	1132	171	2814



# WILTEC

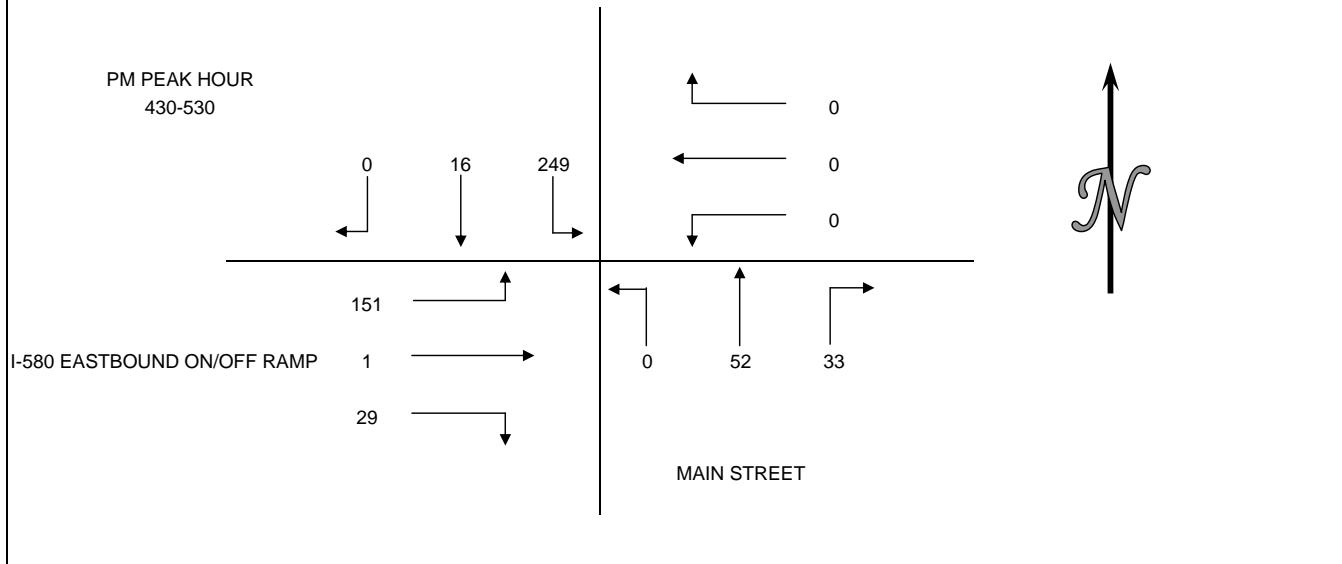
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 EASTBOUND ON/OFF RAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	0	3	34	0	0	0	9	19	0	8	1	39	113
415-430	0	2	35	0	0	0	10	12	0	6	1	38	104
430-445	0	5	47	0	0	0	7	24	0	8	0	44	135
445-500	0	2	54	0	0	0	17	8	0	5	1	37	124
500-515	0	6	83	0	0	0	5	13	0	10	0	39	156
515-530	0	3	65	0	0	0	4	7	0	6	0	31	116
530-545	0	4	63	0	0	0	4	12	0	10	2	22	117
545-600	0	8	51	0	0	0	3	8	0	9	0	18	97

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	0	12	170	0	0	0	43	63	0	27	3	158	476
415-515	0	15	219	0	0	0	39	57	0	29	2	158	519
430-530	0	16	249	0	0	0	33	52	0	29	1	151	531
445-545	0	15	265	0	0	0	30	40	0	31	3	129	513
500-600	0	21	262	0	0	0	16	40	0	35	2	110	486



# WILTEC

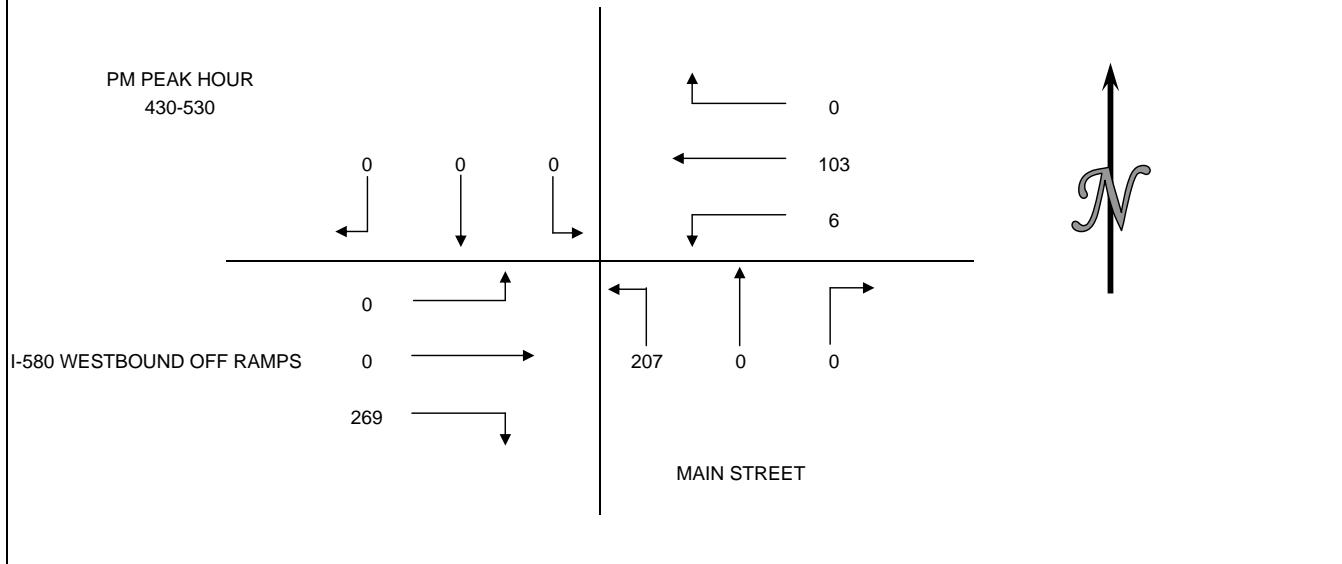
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: TUESDAY JANUARY 30, 2007  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 WESTBOUND OFF RAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	0	0	0	0	19	1	0	0	54	40	0	0	114
415-430	0	0	0	0	27	2	0	0	52	34	0	0	115
430-445	0	0	0	0	28	1	0	0	68	55	0	0	152
445-500	0	0	0	0	36	1	0	0	46	58	0	0	141
500-515	0	0	0	0	18	3	0	0	53	83	0	0	157
515-530	0	0	0	0	21	1	0	0	40	73	0	0	135
530-545	0	0	0	0	22	3	0	0	38	62	0	0	125
545-600	0	0	0	0	23	5	0	0	23	58	0	0	109

HOUR TOTALS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	0	0	0	0	110	5	0	0	220	187	0	0	522
415-515	0	0	0	0	109	7	0	0	219	230	0	0	565
430-530	0	0	0	0	103	6	0	0	207	269	0	0	585
445-545	0	0	0	0	97	8	0	0	177	276	0	0	558
500-600	0	0	0	0	84	12	0	0	154	276	0	0	526



**Existing Turning Movement Counts  
Saturday Midday Peak Hour**

# WILTEC

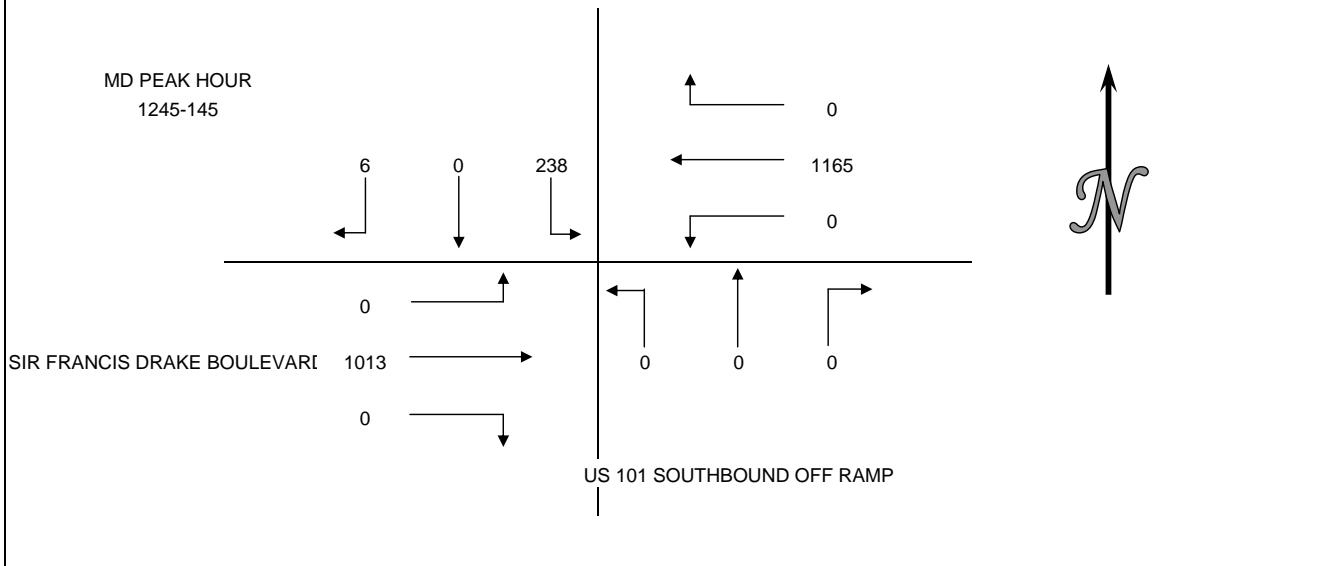
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S US 101 SOUTHBOUND OFF RAMP  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1115	1	0	56	0	322	0	0	0	0	0	233	0	612
1115-1130	0	0	42	0	293	0	0	0	0	0	262	0	597
1130-1145	0	0	35	0	293	0	0	0	0	0	250	0	578
1145-1200	0	0	37	0	292	0	0	0	0	0	289	0	618
1200-1215	2	0	54	0	314	0	0	0	0	0	257	0	627
1215-1230	1	0	41	0	313	0	0	0	0	0	237	0	592
1230-1245	1	0	50	0	297	0	0	0	0	0	224	0	572
1245-100	0	0	47	0	278	0	0	0	0	0	243	0	568
100-115	1	0	62	0	290	0	0	0	0	0	279	0	632
115-130	3	0	79	0	290	0	0	0	0	0	263	0	635
130-145	2	0	50	0	307	0	0	0	0	0	228	0	587
145-200	0	0	39	0	311	0	0	0	0	0	213	0	563

HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1200	1	0	170	0	1200	0	0	0	0	0	1034	0	2405
1115-1215	2	0	168	0	1192	0	0	0	0	0	1058	0	2420
1130-1230	3	0	167	0	1212	0	0	0	0	0	1033	0	2415
1145-1245	4	0	182	0	1216	0	0	0	0	0	1007	0	2409
1200-100	4	0	192	0	1202	0	0	0	0	0	961	0	2359
1215-115	3	0	200	0	1178	0	0	0	0	0	983	0	2364
1230-130	5	0	238	0	1155	0	0	0	0	0	1009	0	2407
1245-145	6	0	238	0	1165	0	0	0	0	0	1013	0	2422
100-200	6	0	230	0	1198	0	0	0	0	0	983	0	2417



# WILTEC

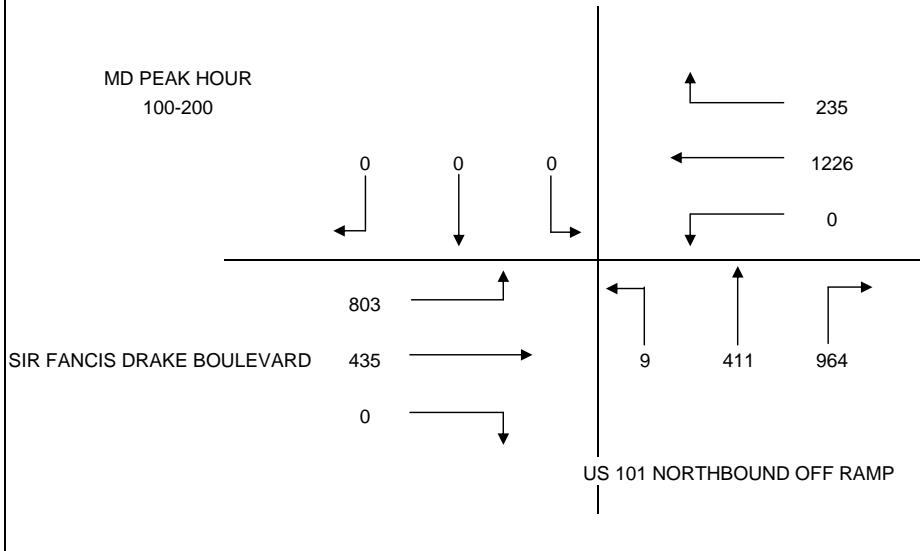
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S US 101 NORTHBOUND OFF RAMP  
 E/W SIR FANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1115	0	0	0	39	339	0	200	117	0	0	122	184	1001	
1115-1130	0	0	0	63	296	0	236	94	0	0	111	200	1000	
1130-1145	0	0	0	39	284	0	220	117	0	0	94	188	942	
1145-1200	0	0	0	51	279	0	204	109	0	0	106	218	967	
1200-1215	0	0	0	58	312	0	212	87	2	0	91	204	966	
1215-1230	0	0	0	60	315	0	231	106	0	0	81	198	991	
1230-1245	0	0	0	49	309	0	244	120	1	0	106	179	1008	
1245-100	0	0	0	61	270	0	230	96	1	0	105	196	959	
100-115	0	0	0	65	288	0	226	102	4	0	108	262	1055	
115-130	0	0	0	67	324	0	210	124	1	0	120	193	1039	
130-145	0	0	0	49	289	0	266	85	3	0	114	164	970	
145-200	0	0	0	54	325	0	262	100	1	0	93	184	1019	

HOUR TOTALS														
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1200	0	0	0	192	1198	0	860	437	0	0	433	790	3910	
1115-1215	0	0	0	211	1171	0	872	407	2	0	402	810	3875	
1130-1230	0	0	0	208	1190	0	867	419	2	0	372	808	3866	
1145-1245	0	0	0	218	1215	0	891	422	3	0	384	799	3932	
1200-100	0	0	0	228	1206	0	917	409	4	0	383	777	3924	
1215-115	0	0	0	235	1182	0	931	424	6	0	400	835	4013	
1230-130	0	0	0	242	1191	0	910	442	7	0	439	830	4061	
1245-145	0	0	0	242	1171	0	932	407	9	0	447	815	4023	
100-200	0	0	0	235	1226	0	964	411	9	0	435	803	4083	



# WILTEC

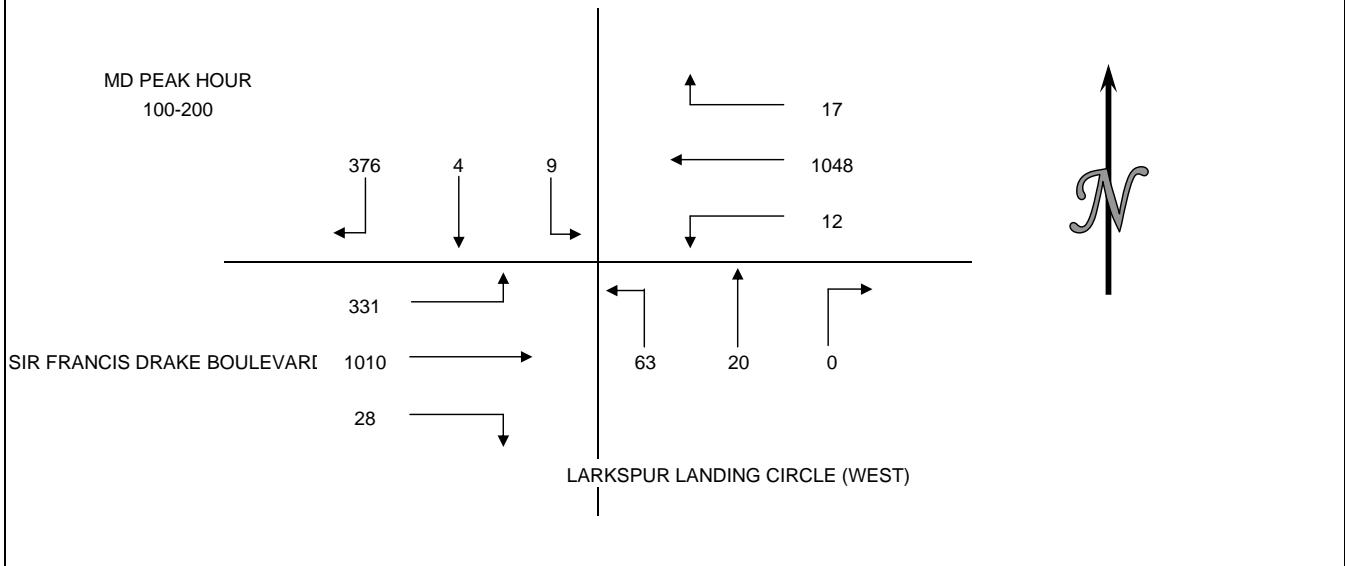
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S LARKSPUR LANDING CIRCLE (WEST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1115	106	1	1	4	282	3	0	0	6	4	227	88	722	
1115-1130	97	0	2	4	223	2	0	0	4	0	239	89	660	
1130-1145	87	0	0	4	220	1	0	7	6	0	231	73	629	
1145-1200	94	0	0	5	246	3	0	1	2	9	229	81	670	
1200-1215	105	3	1	7	276	2	0	8	9	7	223	82	723	
1215-1230	111	0	3	6	248	0	0	2	6	6	229	88	699	
1230-1245	84	0	2	1	284	2	0	2	4	12	229	100	720	
1245-100	75	1	4	0	232	2	0	4	8	11	225	72	634	
100-115	93	1	1	2	253	2	0	5	7	6	238	84	692	
115-130	100	2	2	7	263	7	0	5	38	7	246	84	761	
130-145	79	1	1	2	245	0	0	5	12	12	245	85	687	
145-200	104	0	5	6	287	3	0	5	6	3	281	78	778	

HOUR TOTALS														
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1200	384	1	3	17	971	9	0	8	18	13	926	331	2681	
1115-1215	383	3	3	20	965	8	0	16	21	16	922	325	2682	
1130-1230	397	3	4	22	990	6	0	18	23	22	912	324	2721	
1145-1245	394	3	6	19	1054	7	0	13	21	34	910	351	2812	
1200-100	375	4	10	14	1040	6	0	16	27	36	906	342	2776	
1215-115	363	2	10	9	1017	6	0	13	25	35	921	344	2745	
1230-130	352	4	9	10	1032	13	0	16	57	36	938	340	2807	
1245-145	347	5	8	11	993	11	0	19	65	36	954	325	2774	
100-200	376	4	9	17	1048	12	0	20	63	28	1010	331	2918	



# WILTEC

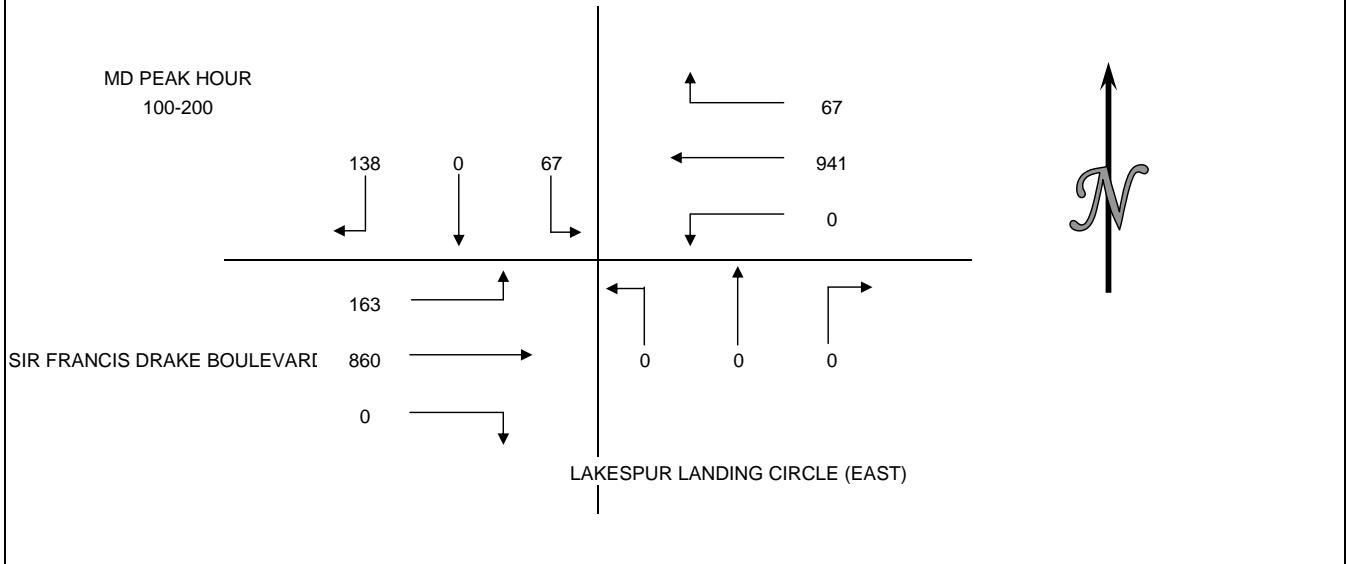
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S LAKESPUR LANDING CIRCLE (EAST)  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1115	27	0	13	9	237	0	0	0	0	0	183	45	514
1115-1130	27	0	16	13	202	0	0	0	0	0	223	30	511
1130-1145	24	0	17	14	216	0	0	0	0	0	203	36	510
1145-1200	35	0	12	13	236	0	0	0	0	0	217	37	550
1200-1215	31	0	15	13	268	0	0	0	0	0	211	33	571
1215-1230	41	0	20	13	238	0	0	0	0	0	203	38	553
1230-1245	33	0	11	17	226	0	0	0	0	0	191	35	513
1245-100	28	0	9	12	221	0	0	0	0	0	199	41	510
100-115	29	0	12	18	230	0	0	0	0	0	220	43	552
115-130	41	0	16	23	206	0	0	0	0	0	197	38	521
130-145	31	0	21	13	233	0	0	0	0	0	210	51	559
145-200	37	0	18	13	272	0	0	0	0	0	233	31	604

HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1200	113	0	58	49	891	0	0	0	0	0	826	148	2085
1115-1215	117	0	60	53	922	0	0	0	0	0	854	136	2142
1130-1230	131	0	64	53	958	0	0	0	0	0	834	144	2184
1145-1245	140	0	58	56	968	0	0	0	0	0	822	143	2187
1200-100	133	0	55	55	953	0	0	0	0	0	804	147	2147
1215-115	131	0	52	60	915	0	0	0	0	0	813	157	2128
1230-130	131	0	48	70	883	0	0	0	0	0	807	157	2096
1245-145	129	0	58	66	890	0	0	0	0	0	826	173	2142
100-200	138	0	67	67	941	0	0	0	0	0	860	163	2236



# WILTEC

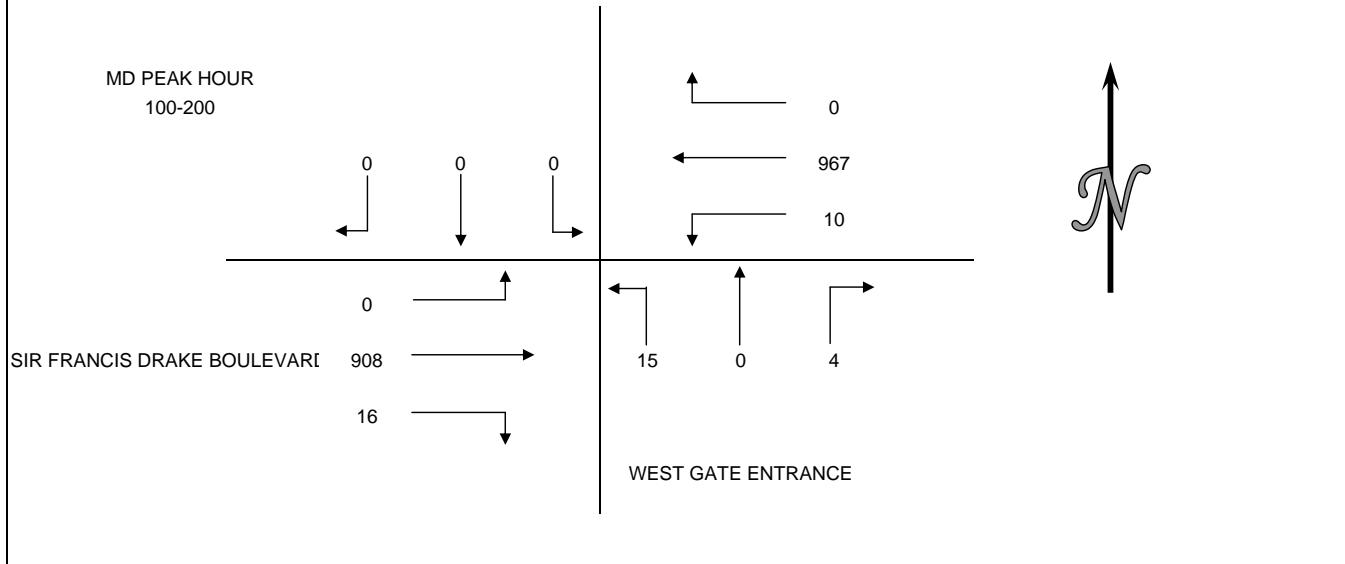
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S WEST GATE ENTRANCE  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS														
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1115	0	0	0	6	238	1	1	0	0	3	204	0	453	
1115-1130	0	0	0	0	215	0	1	0	1	1	212	0	430	
1130-1145	0	0	0	0	238	1	0	0	0	0	211	0	450	
1145-1200	0	0	0	0	275	1	0	0	1	1	233	0	511	
1200-1215	0	0	0	0	226	2	0	0	2	2	197	0	429	
1215-1230	0	0	0	0	266	0	0	0	1	0	214	0	481	
1230-1245	0	0	0	0	239	0	0	0	2	0	212	0	453	
1245-100	0	0	0	0	247	0	0	0	2	3	206	0	458	
100-115	0	0	0	0	233	2	0	0	2	2	227	0	466	
115-130	0	0	0	0	225	3	0	0	2	5	214	0	449	
130-145	0	0	0	0	240	3	0	0	5	5	225	0	478	
145-200	0	0	0	0	269	2	4	0	6	4	242	0	527	

HOUR TOTALS														
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL	
1100-1200	0	0	0	6	966	3	2	0	2	5	860	0	1844	
1115-1215	0	0	0	0	954	4	1	0	4	4	853	0	1820	
1130-1230	0	0	0	0	1005	4	0	0	4	3	855	0	1871	
1145-1245	0	0	0	0	1006	3	0	0	6	3	856	0	1874	
1200-100	0	0	0	0	978	2	0	0	7	5	829	0	1821	
1215-115	0	0	0	0	985	2	0	0	7	5	859	0	1858	
1230-130	0	0	0	0	944	5	0	0	8	10	859	0	1826	
1245-145	0	0	0	0	945	8	0	0	11	15	872	0	1851	
100-200	0	0	0	0	967	10	4	0	15	16	908	0	1920	



# WILTEC

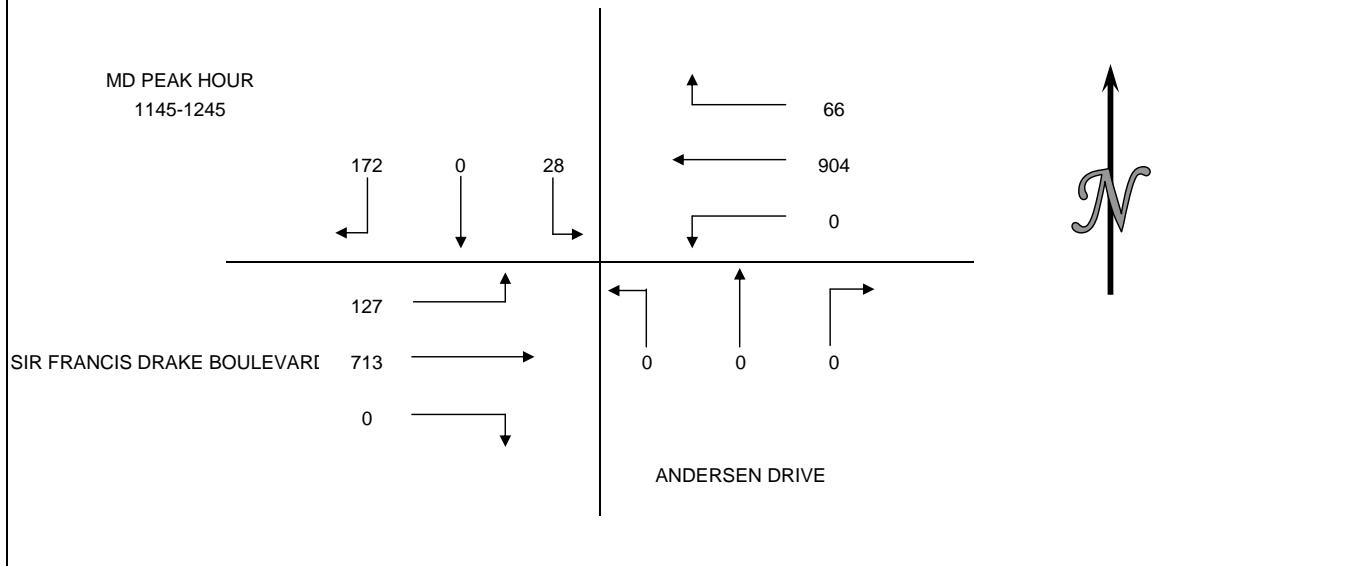
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S ANDERSEN DRIVE  
 E/W SIR FRANCIS DRAKE BOULEVARD  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1115	22	0	2	12	173	0	0	0	0	0	178	28	415
1115-1130	25	0	3	10	201	0	0	0	0	0	177	33	449
1130-1145	32	0	3	10	203	0	0	0	0	0	190	41	479
1145-1200	76	0	11	32	231	0	0	0	0	0	182	47	579
1200-1215	27	0	5	11	243	0	0	0	0	0	175	25	486
1215-1230	29	0	3	4	210	0	0	0	0	0	164	20	430
1230-1245	40	0	9	19	220	0	0	0	0	0	192	35	515
1245-100	26	0	4	11	188	0	0	0	0	0	194	19	442
100-115	31	0	5	13	230	0	0	0	0	0	201	20	500
115-130	32	0	4	8	212	0	0	0	0	0	188	23	467
130-145	37	0	7	11	203	0	0	0	0	0	203	24	485
145-200	27	0	2	11	188	0	0	0	0	0	229	16	473

HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1200	155	0	19	64	808	0	0	0	0	0	727	149	1922
1115-1215	160	0	22	63	878	0	0	0	0	0	724	146	1993
1130-1230	164	0	22	57	887	0	0	0	0	0	711	133	1974
1145-1245	172	0	28	66	904	0	0	0	0	0	713	127	2010
1200-100	122	0	21	45	861	0	0	0	0	0	725	99	1873
1215-115	126	0	21	47	848	0	0	0	0	0	751	94	1887
1230-130	129	0	22	51	850	0	0	0	0	0	775	97	1924
1245-145	126	0	20	43	833	0	0	0	0	0	786	86	1894
100-200	127	0	18	43	833	0	0	0	0	0	821	83	1925



# WILTEC

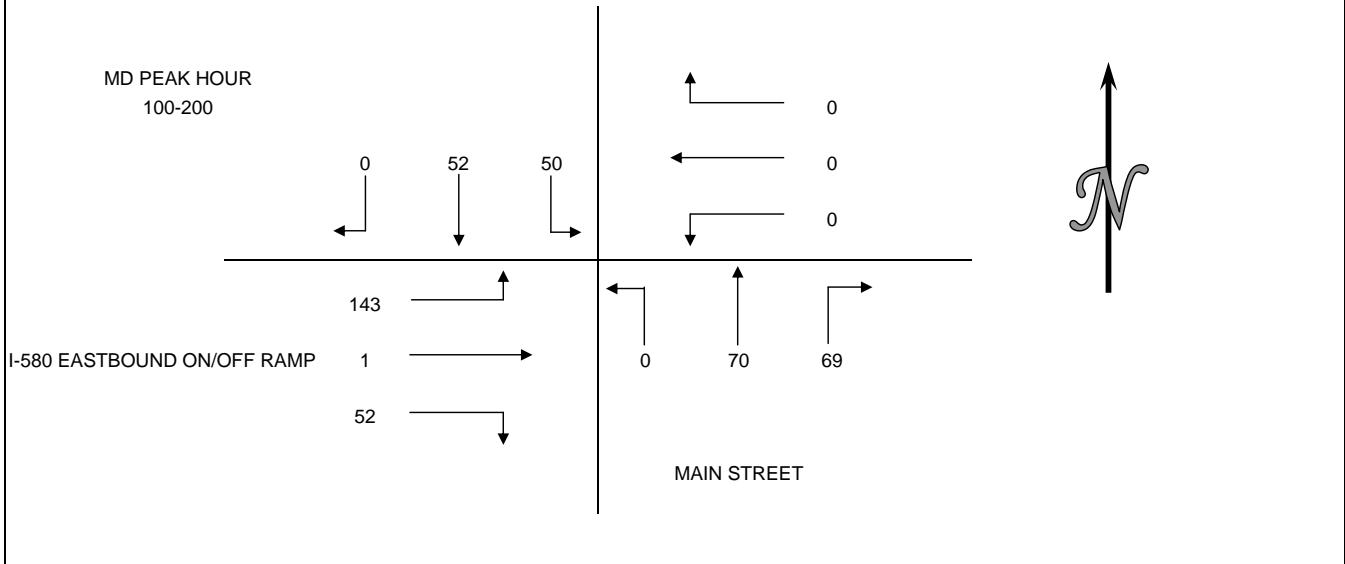
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 EASTBOUND ON/OFF RAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1115	0	11	28	0	0	0	7	14	0	1	1	40	102
1115-1130	0	4	15	0	0	0	3	9	0	9	2	48	90
1130-1145	0	3	12	0	0	0	1	14	0	8	0	39	77
1145-1200	0	15	19	0	0	0	7	20	0	4	1	36	102
1200-1215	0	8	30	0	0	0	10	14	0	7	1	41	111
1215-1230	0	4	18	0	0	0	8	10	0	8	0	46	94
1230-1245	0	5	13	0	0	0	9	10	0	3	0	44	84
1245-100	0	11	11	0	0	0	9	11	0	7	0	45	94
100-115	0	5	9	0	0	0	10	14	0	12	0	32	82
115-130	0	14	9	0	0	0	12	15	0	12	1	37	100
130-145	0	15	14	0	0	0	19	12	0	21	0	34	115
145-200	0	18	18	0	0	0	28	29	0	7	0	40	140

HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1200	0	33	74	0	0	0	18	57	0	22	4	163	371
1115-1215	0	30	76	0	0	0	21	57	0	28	4	164	380
1130-1230	0	30	79	0	0	0	26	58	0	27	2	162	384
1145-1245	0	32	80	0	0	0	34	54	0	22	2	167	391
1200-100	0	28	72	0	0	0	36	45	0	25	1	176	383
1215-115	0	25	51	0	0	0	36	45	0	30	0	167	354
1230-130	0	35	42	0	0	0	40	50	0	34	1	158	360
1245-145	0	45	43	0	0	0	50	52	0	52	1	148	391
100-200	0	52	50	0	0	0	69	70	0	52	1	143	437



# WILTEC

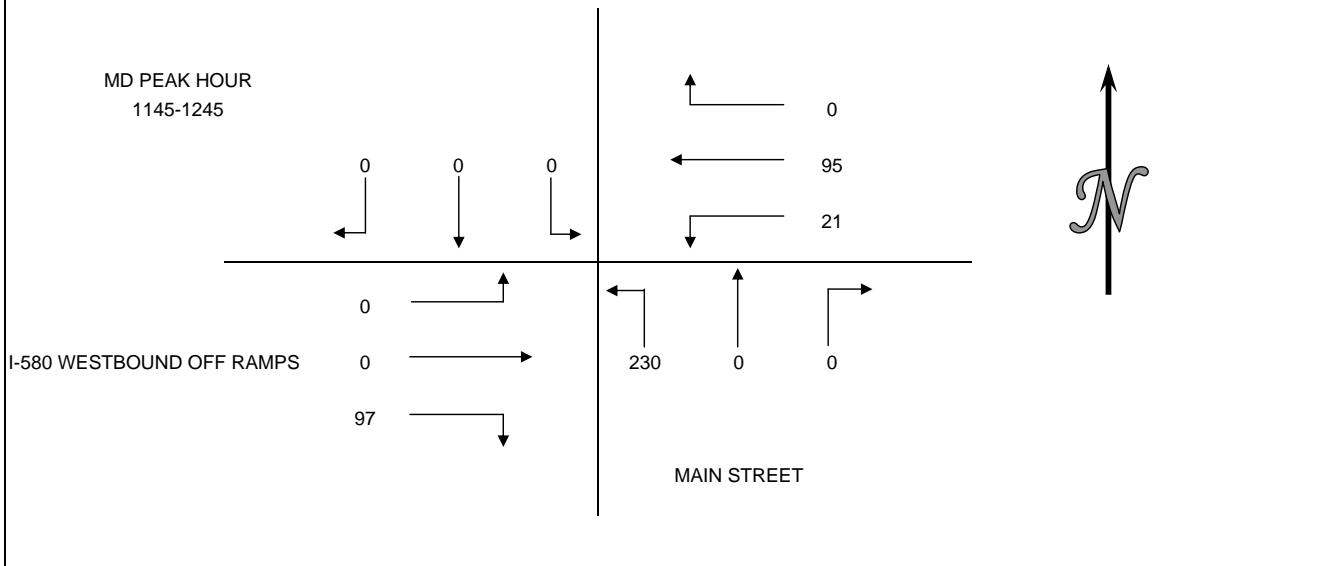
Phone: (626) 564-1944 Fax: (626) 564-0969

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: DKS ASSOCIATES  
 PROJECT: SAN QUENTIN HEALTHCARE FACILITY EIR  
 DATE: SATURDAY FEBRUARY 3, 2007  
 PERIOD: 11:00 AM TO 2:00 PM  
 INTERSECTION: N/S MAIN STREET  
 E/W I-580 WESTBOUND OFF RAMPS  
 CITY: MARIN COUNTY

15 MIN COUNTS													
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1115	0	0	0	0	18	10	0	0	61	32	0	0	121
1115-1130	0	0	0	0	18	6	0	0	54	18	0	0	96
1130-1145	0	0	0	0	9	4	0	0	53	11	0	0	77
1145-1200	0	0	0	0	18	4	0	0	53	23	0	0	98
1200-1215	0	0	0	0	35	8	0	0	69	40	0	0	152
1215-1230	0	0	0	0	27	5	0	0	53	25	0	0	110
1230-1245	0	0	0	0	15	4	0	0	55	9	0	0	83
1245-100	0	0	0	0	16	1	0	0	43	11	0	0	71
100-115	0	0	0	0	17	6	0	0	44	9	0	0	76
115-130	0	0	0	0	15	4	0	0	57	17	0	0	93
130-145	0	0	0	0	36	8	0	0	41	18	0	0	103
145-200	0	0	0	0	19	13	0	0	71	23	0	0	126

HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
1100-1200	0	0	0	0	63	24	0	0	221	84	0	0	392
1115-1215	0	0	0	0	80	22	0	0	229	92	0	0	423
1130-1230	0	0	0	0	89	21	0	0	228	99	0	0	437
1145-1245	0	0	0	0	95	21	0	0	230	97	0	0	443
1200-100	0	0	0	0	93	18	0	0	220	85	0	0	416
1215-115	0	0	0	0	75	16	0	0	195	54	0	0	340
1230-130	0	0	0	0	63	15	0	0	199	46	0	0	323
1245-145	0	0	0	0	84	19	0	0	185	55	0	0	343
100-200	0	0	0	0	87	31	0	0	213	67	0	0	398



## **APPENDIX B**

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SQSP Central Health Services Center TIA  
TRAFFIX Level of Service Calculations

**Existing Conditions  
AM Peak Hour**

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.655  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 13.9  
Optimal Cycle: 38 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 432 0 2 0 1092 0 0 0 1646 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 432 0 2 0 1092 0 0 0 1646 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 460 0 2 0 1162 0 0 0 1751 0	
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 460 0 2 0 1162 0 0 0 1751 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00	
Final Vol.:	0 0 0 460 0 2 0 1278 0 0 0 1926 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.99 0.00 0.01 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1617 0 7 0 5700 0 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.28 0.00 0.28 0.00 0.22 0.00 0.00 0.34 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.52 0.00 0.00 0.52 0.00
Volume/Cap:	0.00 0.00 0.00 0.65 0.00 0.65 0.00 0.43 0.00 0.00 0.65 0.00
Uniform Del:	0.0 0.0 0.0 20.4 0.0 20.4 0.0 13.8 0.0 0.0 16.1 0.0
IncremntDel:	0.0 0.0 0.0 1.6 0.0 1.6 0.0 0.1 0.0 0.0 0.4 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 18.9 0.0 18.9 0.0 11.8 0.0 0.0 14.1 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 18.9 0.0 18.9 0.0 11.8 0.0 0.0 14.1 0.0
DesignQueue:	0 0 0 19 0 19 0 15 0 0 23 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.737  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 58 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1 0 1 0 0 0 0 0 0 2 0 1 0 0 0 0 0 2 0 1			

Volume Module:

	Base Vol: 23 201 846 0 0 0 608 750 0 0 1490 197
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	23 201 846 0 0 0 608 750 0 0 1490 197
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:	24 212 0 0 0 640 789 0 0 0 1568 0
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	24 212 0 0 0 640 789 0 0 0 1568 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
Final Vol.:	25 222 0 0 0 659 789 0 0 0 1647 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.99 0.99 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.21 1.79 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	386 3376 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.07 0.07 0.00 0.00 0.00 0.00 0.18 0.42 0.00 0.00 0.43 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.09 0.09 0.00 0.00 0.00 0.00 0.25 0.84 0.00 0.00 0.59 0.00
Volume/Cap:	0.74 0.74 0.00 0.00 0.00 0.00 0.74 0.50 0.00 0.00 0.74 0.00
Uniform Del:	40.5 40.5 0.0 0.0 0.0 0.0 31.6 2.1 0.0 0.0 13.7 0.0
IncremntDel:	5.6 5.6 0.0 0.0 0.0 0.0 2.3 0.2 0.0 0.0 0.9 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	40.0 40.0 0.0 0.0 0.0 0.0 29.1 2.0 0.0 0.0 12.5 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	40.0 40.0 0.0 0.0 0.0 0.0 29.1 2.0 0.0 0.0 12.5 0.0
DesignQueue:	8 8 0 0 0 0 17 10 0 0 26 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.633  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 15.5  
Optimal Cycle: 51 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	41	2	1	9	28	299	296	986	346	14	1353	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	2	1	9	28	299	296	986	346	14	1353	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	42	2	1	9	29	308	305	1016	0	14	1395	5
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	2	1	9	29	308	305	1016	0	14	1395	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
Final Vol.:	46	2	1	9	29	308	314	1067	0	14	1534	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.83	0.11	0.06	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01
Final Sat.:	5169	202	101	1805	1900	1615	3610	3800	1900	1805	5679	21

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.01	0.02	0.19	0.09	0.28	0.00	0.01	0.27	0.27
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.21	0.21	0.11	0.30	0.30	0.14	0.55	0.00	0.02	0.43	0.43
Volume/Cap:	0.63	0.05	0.05	0.05	0.05	0.63	0.63	0.51	0.00	0.51	0.63	0.63
Uniform Del:	37.3	24.0	24.0	30.5	18.8	22.9	31.0	10.8	0.0	37.1	17.1	17.1
IncremntDel:	10.2	0.0	0.0	0.0	0.0	1.9	1.9	0.2	0.0	10.8	0.4	0.4
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	41.9	20.4	20.4	26.0	16.0	21.4	28.2	9.3	0.0	42.4	14.9	14.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.9	20.4	20.4	26.0	16.0	21.4	28.2	9.3	0.0	42.4	14.9	14.9
DesignQueue:	1	1	1	0	1	12	8	14	0	1	18	18

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.416  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 5.1  
Optimal Cycle: 30 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 1 0 0 0 0 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	71	0	17	72	962	0	0	1334	94
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	71	0	17	72	962	0	0	1334	94
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	76	0	18	77	1034	0	0	1434	101
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	76	0	18	77	1034	0	0	1434	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	76	0	18	77	1086	0	0	1578	111

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.80	0.20
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5272	371

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.01	0.04	0.29	0.00	0.00	0.30	0.30
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.82	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.42	0.00	0.11	0.42	0.35	0.00	0.00	0.42	0.42
Uniform Del:	0.0	0.0	0.0	38.4	0.0	37.2	38.3	2.0	0.0	0.0	5.1	5.1
IncremntDel:	0.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	33.6	0.0	31.6	33.5	1.7	0.0	0.0	4.4	4.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	33.6	0.0	31.6	33.5	1.7	0.0	0.0	4.4	4.4
DesignQueue:	0	0	0	5	0	1	5	7	0	0	11	11

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[152.1]

---

	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	5 0 4 0 0 0	0 1047 12 13 1429 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	5 0 4 0 0 0	0 1047 12 13 1429 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.00 0.98 0.98 0.98	0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	5 0 0 0 0 0	0 1068 12 13 1458 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
Final Vol.:	5 0 0 0 0 0	0 1068 12 13 1458 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx

---

Capacity Module:

Cnflict Vol:	2553 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 1081 xxxx xxxx
Potent Cap.:	30 xxxx xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx
Move Cap.:	29 xxxx xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx
Volume/Cap:	0.17 xxxx xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	0.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx
Control Del:	152.1 xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx
LOS by Move:	F * * * * * * * B * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * * *
ApproachDel:	152.1 xxxxxx xxxxxx xxxxxx
ApproachLOS:	F * *

---

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 3.0 Worst Case Level Of Service: F[249.3]

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	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 27 0 195 67 927 0 0 1229 358
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 27 0 195 67 927 0 0 1229 358
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	0 0 0 28 0 0 68 946 0 0 1254 365
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:	0 0 0 28 0 0 68 946 0 0 1254 365

---

Critical Gap Module:

Critical Gp:	xxxx xxxx xxxx 6.4 xxxx xxxx 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxx xxxx 3.5 xxxx xxxx 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx 2337 xxxx xxxx 1619 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx 41 xxxx xxxx 408 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx 36 xxxx xxxx 408 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx 0.77 xxxx 0.17 xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	xxxx xxxx 2.7 xxxx xxxx 0.6 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxx xxxx xxxx 249.3 xxxx xxxx 15.6 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * F * * C * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * * *
ApproachDel:	xxxxxx 249.3 xxxxxx
ApproachLOS:	* F *

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Note: Queue reported is the number of cars per lane.

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 Level Of Service Computation Report  
 2000 HCM 4-Way Stop Method (Base Volume Alternative)  
 \*\*\*\*  
 Intersection #7  
 \*\*\*\*  
 Cycle (sec): 60 Critical Vol./Cap.(X): 0.388  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.9  
 Optimal Cycle: 0 Level Of Service: A  
 \*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Stop Sign Stop Sign  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0  
 Volume Module:  
 Base Vol: 0 0 0 217 2 45 0 27 6 63 27 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 0 0 217 2 45 0 27 6 63 27 0  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85  
 PHF Volume: 0 0 0 255 2 53 0 32 7 74 32 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 0 0 0 255 2 53 0 32 7 74 32 0  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Vol.: 0 0 0 255 2 53 0 32 7 74 32 0  
 Saturation Flow Module:  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.82 0.18 0.70 0.30 0.00  
 Final Sat.: 0 0 0 659 6 853 0 593 132 496 212 0  
 Capacity Analysis Module:  
 Vol/Sat: xxxx xxxx xxxx 0.39 0.39 0.06 xxxx 0.05 0.05 0.15 0.15 xxxx  
 Crit Moves: \*\*\*\*\* \*\*\*\*\*  
 Delay/Veh: 0.0 0.0 0.0 11.3 11.3 7.1 0.0 7.9 7.9 8.7 8.7 0.0  
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 0.0 0.0 0.0 11.3 11.3 7.1 0.0 7.9 7.9 8.7 8.7 0.0  
 LOS by Move: \* \* \* B A \* A A A A \*  
 ApproachDel: xxxxxxxx 10.6 7.9 8.7  
 Delay Adj: xxxxxx 1.00 1.00  
 ApprAdjDel: xxxxxxx 10.6 7.9 8.7  
 LOS by Appr: \* B A A  
 AllWayAvgQ: 0.0 0.0 0.0 0.6 0.6 0.1 0.1 0.1 0.1 0.2 0.2 0.2  
 \*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*

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-----  
 Level Of Service Computation Report  
 2000 HCM 4-Way Stop Method (Base Volume Alternative)  
 \*\*\*\*  
 Intersection #8  
 \*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.477  
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.1  
 Optimal Cycle: 0 Level Of Service: B  
 \*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Stop Sign Stop Sign  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 0 1 0 0 0 0 0 0 0 0 0 0  
 Volume Module:  
 Base Vol: 31 296 0 0 0 60 246 0 0 0 0 0 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 31 296 0 0 0 60 246 0 0 0 0 0 0  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92  
 PHF Volume: 34 322 0 0 0 65 267 0 0 0 0 0 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 34 322 0 0 0 65 267 0 0 0 0 0 0  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Vol.: 34 322 0 0 0 65 267 0 0 0 0 0 0  
 Saturation Flow Module:  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 0.09 0.91 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00  
 Final Sat.: 71 675 0 0 0 761 681 0 0 0 0 0 0  
 Capacity Analysis Module:  
 Vol/Sat: 0.48 0.48 xxxx xxxx xxxx 0.09 0.39 xxxx xxxx xxxx xxxx xxxx  
 Crit Moves: \*\*\*\*\* \*\*\*\*\*  
 Delay/Veh: 11.7 11.7 0.0 0.0 0.0 7.8 11.0 0.0 0.0 0.0 0.0 0.0  
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 11.7 11.7 0.0 0.0 0.0 7.8 11.0 0.0 0.0 0.0 0.0 0.0  
 LOS by Move: B B \* \* \* A B \* \* \* A \* \* \*  
 ApproachDel: 11.7 7.8 11.0 xxxxxxxx  
 Delay Adj: 1.00 1.00 xxxxxxxx  
 ApprAdjDel: 11.7 7.8 11.0 xxxxxxxx  
 LOS by Appr: B A B \* \* \*  
 AllWayAvgQ: 0.8 0.8 0.8 0.1 0.1 0.1 0.6 0.6 0.6 0.0 0.0 0.0  
 \*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*

## **Existing Conditions Midday Peak Hour**



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Level Of Service Computation Report  
Operations Method (Base Volume Alternative)

Intersection #4

\*\*\*\*\*

Cycle (sec): 120 Critical Vol./Cap.(X): 0.357

Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 9.8

Optimal Cycle: 28 Level Of Service: B

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0	2	0	0	0	0	2	1	0

\*\*\*\*\*

Volume Module:

Base Vol.:	0	0	0	96	0	75	122	812	0	0	783	70
Growth Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	96	0	75	122	812	0	0	783	70
User Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj.:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	0	0	110	0	86	140	933	0	0	900	80
Reduc Vol.:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol.:	0	0	0	110	0	86	140	933	0	0	900	80
PCE Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.10
Final Vol.:	0	0	0	110	0	86	140	980	0	0	990	89

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.75
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5180	463

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.05	0.08	0.26	0.00	0.00	0.19	0.19
Crit Moves:	***						***			***		
Green/Cycle:	0.00	0.00	0.00	0.17	0.00	0.17	0.22	0.75	0.00	0.00	0.54	0.54
Volume/Cap:	0.00	0.00	0.00	0.36	0.00	0.31	0.36	0.34	0.00	0.00	0.36	0.36
Uniform Del:	0.0	0.0	0.0	0.33	0.0	0.33	0.31	0.30	2.3	0.0	0.0	12.1
Incremntl Del:	0.0	0.0	0.0	0.3	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Delay Adj.:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh.:	0.0	0.0	0.0	28.7	0.0	28.3	26.0	3.2	0.0	0.0	10.4	10.4
User DelAdj.:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh.:	0.0	0.0	0.0	28.7	0.0	28.3	26.0	3.2	0.0	0.0	10.4	10.4
DesignQueue:	0	0	0	6	0	5	7	9	0	0	12	12

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
Unsignalized Method (Base Volume Alternative)

Intersection #5

Average Delay (sec/veh): 4.5 Worst Case Level Of Service: F[140.4]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Ignore Include Include Include

Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0

Volume Module:

Base Vol:	59	0	13	0	0	0	0	964	11	5	815	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	0	13	0	0	0	0	964	11	5	815	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	62	0	0	0	0	0	0	1015	12	5	858	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	62	0	0	0	0	0	0	1015	12	5	858	0

Critical Gap Module:

| Critical Gp: | 6.4 | xxxx | 4.1 | xxxx | xxxx |
|--------------|-----|------|------|------|------|------|------|------|------|-----|------|------|
| FollowUpTim: | 3.5 | xxxx | 2.2 | xxxx | xxxx |

Capacity Module:

| Cnflct Vol:  | 1883 | xxxx | 1026 | xxxx | xxxx |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Potent Cap.: | 79   | xxxx | 684  | xxxx | xxxx |
| Move Cap.:   | 78   | xxxx | 684  | xxxx | xxxx |
| Volume/Cap.: | 0.79 | xxxx | 0.01 | xxxx | xxxx |

Level Of Service Module:

2Way95thQ:	3.9	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxx			
Control Del:	140.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	10.3	xxxx	xxxx			
LOS by Move:	F	*	*	*	*	*	*	*	*	B	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
SharedQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*			
ApproachDel:	140.4		xxxxxx												
ApproachLOS:	F		*		*		*		*		*				

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6

	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0	1 0 0 1	1 0 1 0	0 0 1 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	User Adj.	PHF Adj.	PHF Volume.	Reduc Vol.	Final Vol.
Base Vol:	0 0 0 0	35 0 109 154 776	0 0 643 134	1.00 1.00 1.00 1.00 1.00	1.00 0.93 0.93 0.93 0.93	1.00 0.93 0.93 0.93 0.93	0 0 0 0	0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	35 0 109 154 776	0 0 643 134	0 0 0 0	0 0 0 0	0 0 0 0
Initial Bse:	0 0 0 0	35 0 109 154 776	0 0 643 134	1.00 1.00 1.00 1.00 1.00	1.00 0.93 0.93 0.93 0.93	1.00 0.93 0.93 0.93 0.93	0 0 0 0	0 0 0 0
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	38 0 0 166 834	0 0 691 144	0 0 691 144	0 0 0 0	0 0 0 0
PHF Adj:	0.93 0.93 0.93 0.93 0.93	0.93 0.93 0.93 0.93 0.93	0 0 0 0	0 0 0 0	0 0 691 144	0 0 691 144	0 0 0 0	0 0 0 0
PHF Volume:	0 0 0 0	38 0 0 166 834	0 0 691 144	0 0 0 0	0 0 691 144	0 0 691 144	0 0 0 0	0 0 0 0
Reduc Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Final Vol.:	0 0 0 0	38 0 0 166 834	0 0 691 144	0 0 0 0	0 0 691 144	0 0 691 144	0 0 0 0	0 0 0 0

Critical Gap Module:

Critical Gp:	xxxxx xxxx 6.4 xxxx xxxx	xxxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	xxxxx xxxx 3.5 xxxx xxxx	xxxxx xxxx 2.2 xxxx xxxx

Capacity Module:

Cnflict Vol:	xxxxx xxxx 1857 xxxx xxxx	835 xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx 82 xxxx xxxx	807 xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx 69 xxxx xxxx	807 xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx 0.55 xxxx xxxx	0.21 xxxx xxxx xxxx xxxx

Level of Service Module:

2Way95thQ:	xxxxx xxxx 2.3 xxxx xxxx	0.8 xxxx xxxx xxxx xxxx		
Control Del:	xxxxx xxxx 107.6 xxxx xxxx	10.6 xxxx xxxx xxxx xxxx		
LOS by Move:	* * F * * B * * *			
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * * * * * *			
ApproachDel:	xxxxxx 107.6 xxxxxx	xxxxxx		
ApproachLOS:	*	F		

---

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #7

	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 1 0 1	0 0 0 0	0 1 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 1 0 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	User Adj.	PHF Adj.	PHF Volume.	Reduc Vol.	Final Vol.
Base Vol:	0 0 0 0	207 1 81	0 161 108	80 57 0	0 161 108	80 57 0	0 161 108	80 57 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	207 1 81	0 161 108	80 57 0	0 161 108	80 57 0
Initial Bse:	0 0 0 0	207 1 81	0 161 108	80 57 0	0 161 108	80 57 0	0 161 108	80 57 0
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	0 161 108	0 161 108	80 57 0	0 161 108	80 57 0
PHF Adj:	0.94 0.94 0.94 0.94 0.94	0.94 0.94 0.94 0.94 0.94	0 0 0 0	0 161 108	0 161 108	80 57 0	0 161 108	80 57 0
PHF Volume:	0 0 0 0	220 1 86	0 171 115	85 61 0	0 171 115	85 61 0	0 171 115	85 61 0
Reduc Vol:	0 0 0 0	220 1 86	0 171 115	85 61 0	0 171 115	85 61 0	0 171 115	85 61 0
Reduced Vol:	0 0 0 0	220 1 86	0 171 115	85 61 0	0 171 115	85 61 0	0 171 115	85 61 0
PCE Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	0 171 115	0 171 115	85 61 0	0 171 115	85 61 0
MLF Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0 0 0 0	0 171 115	0 171 115	85 61 0	0 171 115	85 61 0
Final Vol.:	0 0 0 0	220 1 86	0 171 115	85 61 0	0 171 115	85 61 0	0 171 115	85 61 0

Saturation Flow Module:

	Adjustment:	Lanes:	Final Sat.:
Adjustment:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0.00 0.00 0.00 0.99 0.01
Lanes:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0.00 0.00 0.60 0.40 0.40
Final Sat.:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	0.58 0.42 0.00 0.00 0.00

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Delay/Veh:	Delay Adj:	AdjDel/Veh:	LOS by Move:	ApproachDel:	Delay Adj:	ApprAdjDel:	LOS by Appr:	AllWayAvg:
Vol/Sat:	xxxxx xxxx xxxx	0.38 0.38 0.12	xxxxx 0.38 0.38	0.22 0.22 xxxx	0.00 0.00 0.00	*****	*****	*****	*****	*****	*****
Crit Moves:	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Delay/Veh:	0.0 0.0	0.0 12.1 12.1	8.1 0.0 10.4	10.4 9.5 9.5	0.0 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	0.0 1.00 1.00
Delay Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0	0.0 12.1 12.1	8.1 0.0 10.4	10.4 9.5 9.5	0.0 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	0.0 1.00 1.00
LOS by Move:	* * * B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A	* B B B B A
ApproachDel:	xxxxxx	11.0	10.4	9.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay Adj:	xxxxxx	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ApprAdjDel:	xxxxxx	11.0	10.4	9.5	1.00	1.00	1.00	1.00	1.00	1.00	1.00
LOS by Appr:	*	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A	B B B B A
AllWayAvg:	0.0 0.0	0.0 0.6 0.6	0.1 0.6 0.6	0.6 0.6 0.6	0.3 0.3 0.3	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #8  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.536

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.3

Optimal Cycle: 0 Level Of Service: B

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 1 0 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0

-----|-----|-----|-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 61 74 0 0 0 83 373 0 0 0 0 0 0 0 0 0 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 61 74 0 0 0 83 373 0 0 0 0 0 0 0 0 0 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 66 80 0 0 0 90 405 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 66 80 0 0 0 90 405 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 66 80 0 0 0 90 405 0 0 0 0 0 0 0 0 0 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 66 80 0 0 0 90 405 0 0 0 0 0 0 0 0 0 0

-----|-----|-----|-----|-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.45 0.55 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Final Sat.: 302 366 0 0 0 743 756 0 0 0 0 0 0 0 0 0 0

-----|-----|-----|-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.22 0.22 xxxx xxxx xxxx 0.12 0.54 xxxx xxxx xxxx xxxx xxxx

Crit Moves: \*\*\*\* \* \*\*\*\* \*

Delay/Veh: 9.4 9.4 0.0 0.0 0.0 8.0 12.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 9.4 9.4 0.0 0.0 0.0 8.0 12.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

LOS by Move: A A \* \* \* \* A B \* \* \* \* \* \* \* \*

ApproachDel: 9.4 8.0 12.7 \*\*\*\*\*

Delay Adj: 1.00 1.00 1.00 \*\*\*\*\*

ApprAdjDel: 9.4 8.0 12.7 \*\*\*\*\*

LOS by Appr: A A B \*

AllWayAvgQ: 0.2 0.2 0.2 0.1 0.1 0.1 1.1 1.1 1.1 0.0 0.0 0.0 0.0 0.0 0.0

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

**Existing Conditions  
PM Peak Hour**

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.558  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 7.6  
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	Final Vol.
Vol:	0 0 0 229	0 1.00 1.00	0 229 1.00	0 1.00 1.00	0 0.94 0.94	0 244 0.94	0 0 0	0 0 0	0 1.00 1.00	0 1.00 1.00	0 244 0
Adj:	0 0 0 8	1.00 1.00	1.00 1.00	1.00 1.00	0.94 0.94	9 0.94	0 0 0	0 0 0	1.00 1.00	1.00 1.00	9 0.94
Bse:	0 0 0 1039	1.00 1.00	1.00 1.00	1.00 1.00	0.94 0.94	105 0.94	0 0 0	0 0 0	1.00 1.00	1.00 1.00	105 0.94
Vol:	0 0 0 1828	1.00 1.00	1.00 1.00	1.00 1.00	0.94 0.94	1945 0.94	0 0 0	0 0 0	1.00 1.00	1.00 1.00	1945 0
Adj:	0 0 0 0	1.00 1.00	1.00 1.00	1.00 1.00	0.94 0.94	0 0 0	0 0 0	0 0 0	1.00 1.00	1.00 1.00	0 0 0
Final:	0 0 0 0	1.00 1.00	1.00 1.00	1.00 1.00	0.94 0.94	0 0 0	0 0 0	0 0 0	1.00 1.00	1.00 1.00	0 0 0

Saturation Flow Module:

	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj:	1.00 1.00	1.00	0.86	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00 0.00	0.00	0.97	0.00	0.03	0.00	3.00	0.00	0.00	3.00	0.00	0.00
Final Sat.:	0 0 0	1570	0 55	0 5700	0	0 5700	0	0 5700	0	0 5700	0	0 5700

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00	0.00 0.00	0.16 0.00	0.16 0.00	0.00 0.21	0.00 0.00	0.38 0.00	0.00 0.00
Crit Moves:	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00 0.00	0.00 0.00	0.28 0.00	0.28 0.00	0.00 0.67	0.00 0.00	0.67 0.00	0.00 0.00	0.00 0.00
Volume/Cap:	0.00 0.00	0.00 0.00	0.56 0.00	0.56 0.00	0.00 0.32	0.00 0.00	0.00 0.56	0.00 0.00	0.00 0.00
Uniform Del:	0.0 0.0	0.0 0.0	28.1 0.0	28.1 0.0	6.2 0.0	0.0 0.0	7.8 0.0	0.0 0.0	0.0 0.0
IncremntDel:	0.0 0.0	0.0 0.0	1.2 0.0	1.2 0.0	0.0 0.0	0.0 0.0	0.1 0.0	0.0 0.0	0.0 0.0
Delay Adj:	0.00 0.00	0.00 0.00	0.85 0.00	0.85 0.00	0.00 0.85	0.00 0.00	0.85 0.00	0.00 0.00	0.00 0.00
Delay/Veh:	0.0 0.0	0.0 0.0	25.1 0.0	25.1 0.0	5.3 0.0	0.0 0.0	6.8 0.0	0.0 0.0	0.0 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	0.0 0.0	0.0 0.0	25.1 0.0	25.1 0.0	5.3 0.0	0.0 0.0	6.8 0.0	0.0 0.0	0.0 0.0
DesignQueue:	0 0 0	13 0	13 0	9 0	0 17	0 0	0 17	0 0	0 17

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 1.061  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 55.9  
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	Final Vol.
Vol:	6 739 937	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	896 512	0 0	1599 387	0 0 1.00	0 0 1.00	0 0 1.00
Adj:	739 937	0 0	0 0	0 0	0 0	896 512	0 0	1599 387	0 0 1.00	0 0 1.00	0 0 1.00
Bse:	6 739 937	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Vol:	7 803 0	0.92 0.92	0.00 0.00	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92
Adj:	803 0	0 0	0 0	0 0	0 0	974 557	0 0	1738 0	0 0 1.00	0 0 1.00	0 0 1.00
Bal:	7 803 0	0 0	0 0	0 0	0 0	974 557	0 0	1738 0	0 0 1.00	0 0 1.00	0 0 1.00
Reduc:	7 803 0	0 0	0 0	0 0	0 0	974 557	0 0	1738 0	0 0 1.00	0 0 1.00	0 0 1.00
Final:	7 843 0	1.05 1.05	0.00 0.00	1.00 1.00	1.00 1.00	1.03 1.00	1.00 1.00	1.05 1.05	0 0 1.00	0 0 1.00	0 0 1.00

Saturation Flow Module:

	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02 1.98	1.00	0.00 0.00	0.00 0.00	0.00 0.00	2.00 1.00	0.00 0.00	0.00 2.00	1.00 1.00	0.00 2.00	1.00 1.00	0.00 2.00
Final Sat.:	31 3769	1900	0 0 0	3610 1900	0 0 0	3800 1900	0 0 0	3800 1900	0 0 0	3800 1900	0 0 0	3800 1900

Capacity Analysis Module:

	Vol/Sat:	0.22 0.22	0.00 0.00	0.00 0.00	0.00 0.00	0.28 0.29	0.00 0.00	0.48 0.00	0.00 0.00
Crit Moves:	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.21 0.21	0.00 0.00	0.00 0.00	0.00 0.00	0.26 0.71	0.00 0.00	0.00 0.45	0.00 0.00	0.00 0.00
Volume/Cap:	1.06 1.06	0.00 0.00	0.00 0.00	0.00 0.00	1.06 0.41	0.00 0.00	1.06 0.00	1.06 0.00	1.06 0.00
Uniform Del:	36.0 36.0	0.0 0.0	0.0 0.0	0.0 0.0	33.7 5.3	0.0 0.0	0.0 0.25	0.0 0.0	0.0 0.0
IncremntDel:	42.8 42.8	0.0 0.0	0.0 0.0	0.0 0.0	40.7 0.1	0.0 0.0	0.0 0.34	0.0 0.0	0.0 0.0
Delay Adj:	0.85 0.85	0.00 0.00	0.00 0.00	0.00 0.00	0.85 0.85	0.00 0.00	0.00 0.85	0.00 0.00	0.00 0.00
Delay/Veh:	73.4 73.4	0.0 0.0	0.0 0.0	0.0 0.0	69.4 4.6	0.0 0.0	0.0 0.56	0.0 0.0	0.0 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	73.4 73.4	0.0 0.0	0.0 0.0	0.0 0.0	69.4 4.6	0.0 0.0	0.0 0.56	0.0 0.0	0.0 0.0
DesignQueue:	24 24	0 0	0 0	0 0	27 11	0 0	0 38	0 0	0 38

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

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Intersection #3
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.959
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.8
Optimal Cycle: 146 Level Of Service: D
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----
Control: Protected Protected Protected Protected
Rights: Include Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0
-----
Volume Module:
Base Vol: 312 3 0 45 8 564 289 1094 3 5 1441 1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 312 3 0 45 8 564 289 1094 3 5 1441 1
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 339 3 0 49 9 613 314 1189 0 5 1566 1
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 339 3 0 49 9 613 314 1189 0 5 1566 1
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.10 1.00 1.00 1.00 1.00 1.00 1.03 1.05 0.00 1.00 1.10 1.10 1.10 1.10
Final Vol.: 373 3 0 49 9 613 324 1249 0 5 1723 1
-----
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 1.00 0.95 1.00 0.85 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00
Lanes: 2.97 0.03 0.00 1.00 1.00 1.00 2.00 2.00 1.00 1.00 2.97 0.00
Final Sat.: 5369 46 0 1805 1900 1615 3610 3800 1900 1805 5637 6
-----
Capacity Analysis Module:
Vol/Sat: 0.07 0.07 0.00 0.03 0.00 0.38 0.09 0.33 0.00 0.00 0.31 0.3
Crit Moves: **** * * * *
Green/Cycle: 0.07 0.34 0.00 0.13 0.40 0.40 0.09 0.41 0.00 0.00 0.32 0.3
Volume/Cap: 0.96 0.21 0.00 0.21 0.01 0.96 0.96 0.80 0.00 0.80 0.96 0.9
Uniform Del: 35.1 17.9 0.0 29.6 13.9 22.4 34.3 19.8 0.0 37.8 25.4 25.
Incremental Del: 25.7 0.0 0.0 0.1 0.0 19.1 28.1 2.3 0.0 134.5 9.5 9.
Delay Adj: 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.85 0.00 0.85 0.85 0.8
Delay/Veh: 55.6 15.2 0.0 25.2 11.9 38.1 57.3 19.1 0.0 166.6 31.2 31.
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 55.6 15.2 0.0 25.2 11.9 38.1 57.3 19.1 0.0 166.6 31.2 31.
DesignQueue: 7 5 0 2 0 22 8 22 0 0 24 2
*****
```

Note: Queue reported is the number of cars per lane

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

```

Intersection #4
*****
Cycle (sec): 120 Critical Vol./Cap.(X): 0.674
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 49 Level Of Service: C
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 2 1 0
*****
Volume Module:
Base Vol: 0 0 0 133 0 421 100 1199 0 0 1071 134
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 133 0 421 100 1199 0 0 1071 134
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 0 0 140 0 443 105 1262 0 0 1127 141
Reducet Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 140 0 443 105 1262 0 0 1127 141
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.00 1.00 1.10 1.10
Final Vol.: 0 0 0 140 0 443 105 1325 0 0 1240 155
*****
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 0.98 0.98
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.67 0.33
Final Sat.: 0 0 0 1805 0 1615 1805 3800 0 0 4965 621
*****
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.08 0.00 0.27 0.06 0.35 0.00 0.00 0.25 0.25
Crit Moves: **** * **** * ****
Green/Cycle: 0.00 0.00 0.00 0.41 0.00 0.41 0.10 0.52 0.00 0.00 0.42 0.42
Volume/Cap: 0.00 0.00 0.00 0.19 0.00 0.67 0.60 0.67 0.00 0.00 0.60 0.60
Uniform Del: 0.0 0.0 0.0 17.4 0.0 22.1 39.4 16.3 0.0 0.0 20.5 20.5
IncrementDel: 0.0 0.0 0.0 0.0 0.0 1.9 3.8 0.7 0.0 0.0 0.3 0.3
Delay Adj: 0.00 0.00 0.00 0.85 0.00 0.85 0.85 0.85 0.00 0.00 0.85 0.85
Delay/Veh: 0.0 0.0 0.0 14.8 0.0 20.7 37.3 14.5 0.0 0.0 17.7 17.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.14 0.8 0.20 0.37 0.33 0.14 0.5 0.0 0.0 0.17 0.17
DesignQueue: 0 0 0 6 0 19 6 23 0 0 19 19
*****

```

Note: Queue reported is the number of cars per lane

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #5

---

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: F[287.0]

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	11 0 8 0 0 0 0 1358 5 7 1121 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	11 0 8 0 0 0 0 1358 5 7 1121 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume:	12 0 0 0 0 0 0 1492 5 8 1232 0
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:	12 0 0 0 0 0 0 1492 5 8 1232 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx

---

Capacity Module:

Cnflict Vol:	2740 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 1498 xxxx xxxx
Potent Cap.:	23 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 454 xxxx xxxx
Move Cap.:	22 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 454 xxxx xxxx
Volume/Cap:	0.54 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	1.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx
Control Del:	287.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 13.1 xxxx xxxx
LOS by Move:	F * * * * * * * * B * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx

SharedQueue:xxxx xxxx xxxx

Shrd ConDel:xxxx xxxx xxxx

Shared LOS: \* \* \* \* \* \* \* \* \* \*

ApproachDel: 287.0 xxxxxx xxxxxx xxxxxx

ApproachLOS: F \*

---

Note: Queue reported is the number of cars per lane.

---

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

---

Intersection #6

---

Average Delay (sec/veh): 22.0 Worst Case Level Of Service: F[1678.9]

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 0 34 0 102 191 1268 0 0 934 322
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 0 34 0 102 191 1268 0 0 934 322
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.89 0.89 0.89 0.89 0.89 0.89 0.00 0.89 0.89 0.89 0.89 0.89
PHF Volume:	0 0 0 0 38 0 0 215 1425 0 0 1049 362
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:	0 0 0 0 38 0 0 215 1425 0 0 1049 362

---

Critical Gap Module:

Critical Gp:	xxxx xxxx xxxx 6.4 xxxx xxxx 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxx xxxx 3.5 xxxx xxxx 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx 2903 xxxx xxxx 1411 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx 18 xxxx xxxx 490 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx 12 xxxx xxxx 490 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx 3.29 xxxx xxxx 0.44 xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	xxxx xxxx 5.8 xxxx xxxx 2.2 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxx xxxx xxxx 1679 xxxx xxxx 18.0 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * * F * * C * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx

SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx

Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx

Shared LOS: \* \* \* \* \* \* \* \* \*

ApproachDel: 1678.9 xxxxxx xxxxxx

ApproachLOS: F \*

---

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.426  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.5  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 0 0

Volume Module:  
Base Vol: 0 0 0 151 1 29 0 52 33 249 16 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 151 1 29 0 52 33 249 16 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85  
PHF Volume: 0 0 0 178 1 34 0 61 39 293 19 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 178 1 34 0 61 39 293 19 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 178 1 34 0 61 39 293 19 0

Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.61 0.39 0.94 0.06 0.00  
Final Sat.: 0 0 0 578 4 721 0 453 287 687 44 0

Capacity Analysis Module:  
Vol/Sat: xxxx xxxx xxxx 0.31 0.31 0.05 xxxx 0.14 0.14 0.43 0.43 xxxx  
Crit Moves: \*\*\*\*\* \*\*\*\*\*  
Delay/Veh: 0.0 0.0 0.0 11.1 11.1 7.7 0.0 8.3 8.3 11.2 11.2 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 11.1 11.1 7.7 0.0 8.3 8.3 11.2 11.2 0.0  
LOS by Move: \* \* \* B A \* A A B B \*  
ApproachDel: xxxx 10.5 8.3 11.2  
Delay Adj: xxxx 1.00 1.00  
ApprAdjDel: xxxx 10.5 8.3 11.2  
LOS by Appr: \* B A B  
AllWayAvgQ: 0.0 0.0 0.0 0.4 0.4 0.0 0.1 0.1 0.1 0.7 0.7 0.7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.334  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.2  
Optimal Cycle: 0 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:  
Base Vol: 6 103 0 0 0 269 207 0 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 6 103 0 0 0 269 207 0 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93  
PHF Volume: 6 111 0 0 0 289 223 0 0 0 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 6 111 0 0 0 289 223 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 6 111 0 0 0 289 223 0 0 0 0 0 0

Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.06 0.94 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00  
Final Sat.: 40 681 0 0 0 866 696 0 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.16 0.16 xxxx xxxx xxxx 0.33 0.32 xxxx xxxx xxxx xxxx xxxx  
Crit Moves: \*\*\*\*\* \*\*\*\*\*  
Delay/Veh: 8.6 8.6 0.0 0.0 0.0 8.9 10.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 8.6 8.6 0.0 0.0 0.0 8.9 10.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
LOS by Move: A A \* \* \* A B \* \* \* \* \* \*  
ApproachDel: 8.6 8.9 10.1 xxxx  
Delay Adj: 1.00 1.00 xxxx  
ApprAdjDel: 8.6 8.9 10.1 xxxx  
LOS by Appr: A A B \*  
AllWayAvgQ: 0.2 0.2 0.2 0.5 0.5 0.5 0.4 0.4 0.4 0.4 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

**Existing Conditions  
Saturday Midday Peak Hour**

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.416  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.1  
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	Final Vol.
Base Vol:	0 0 0 238	0 6	0 1013	0 1165	0	0 251	0 6	0 1066	0 1226	0	0 251
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0 6
Initial Bse:	0 0 0 238	0 6	0 1013	0 1165	0	0 251	0 6	0 1066	0 1226	0	0 251
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 6
PHF Adj:	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0 6
PHF Volume:	0 0 0 251	0 6	0 1066	0 1226	0	0 251	0 6	0 1066	0 1226	0	0 251
Reduc Vol:	0 0 0 0	0 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0	0 0
Reduced Vol:	0 0 0 251	0 6	0 1066	0 1226	0	0 251	0 6	0 1066	0 1226	0	0 251
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 6
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 6
Final Vol.:	0 0 0 251	0 6	0 1173	0 1349	0	0 251	0 6	0 1173	0 1349	0	0 251

Saturation Flow Module:

	Vol/Sat:	Adj/Sat:	Lanes:	Final Sat.:
Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	0.86 1.00	0.86 1.00	1.00 1.00
Lanes:	0.00 0.00	0.00 0.00	0.98 0.00	0.02 0.00
Final Sat.:	0 0 0 1585	0 40	0 5700	0 5700

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Green/Cycle:	Volume/Cap:	Uniform Del:	IncremntDel:	Delay Adj:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	DesignQueue:
Vol/Sat:	0.00 0.00	0.00 0.16	0.00 0.38	0.00 0.42	0.00 0.20	0.00 0.03	0.00 0.85	0.00 0.85	1.00 1.00	1.00 1.00	0 0
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00 0.00	0.00 0.38	0.00 0.38	0.00 0.42	0.00 0.20	0.00 0.03	0.00 0.85	0.00 0.85	1.00 1.00	1.00 1.00	0 0
Volume/Cap:	0.00 0.00	0.00 0.42	0.00 0.42	0.00 0.42	0.00 0.20	0.00 0.03	0.00 0.85	0.00 0.85	1.00 1.00	1.00 1.00	0 0
Uniform Del:	0.0 0.0	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.20	0.0 0.03	0.0 0.85	0.0 0.85	1.00 1.00	1.00 1.00	0 0
IncremntDel:	0.0 0.0	0.0 0.3	0.0 0.3	0.0 0.3	0.0 0.20	0.0 0.03	0.0 0.85	0.0 0.85	1.00 1.00	1.00 1.00	0 0
Delay Adj:	0.00 0.00	0.00 0.85	0.00 0.85	0.00 0.85	0.00 0.20	0.00 0.03	0.00 0.85	0.00 0.85	1.00 1.00	1.00 1.00	0 0
Delay/Veh:	0.0 0.0	0.0 17.9	0.0 17.9	0.0 17.9	0.0 20.8	0.0 10.6	0.0 9.1	0.0 9.5	1.00 1.00	1.00 1.00	0 0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 0
AdjDel/Veh:	0.0 0.0	0.0 17.9	0.0 17.9	0.0 17.9	0.0 20.8	0.0 10.6	0.0 9.1	0.0 9.5	1.00 1.00	1.00 1.00	0 0
DesignQueue:	0 0 0	11 0	11 0	12 0	10 0	9 0	8 0	7 0	10 0	10 0	0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.762  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 21.0  
Optimal Cycle: 63 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0	0 0 0 1	0 0 0 0	0 0 2 0

Volume Module:

	Base Vol:	Growth Adj:	Initial Bse:	User Adj:	PHF Adj:	PHF Volume:	Reduc Vol:	Reduced Vol:	PCE Adj:	MLF Adj:	Final Vol.:
Base Vol:	9 411	964	0 0	0 0	0 0	0 803	435	0 0	0 1226	235	0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 0
Initial Bse:	9 411	964	0 0	0 0	0 0	0 803	435	0 0	0 1226	235	0
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 0
PHF Adj:	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0.97 0.97	0 0
PHF Volume:	9 424	0 0	0 0	0 0	0 0	0 828	448	0 0	0 1264	0	0
Reduc Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	9 424	0 0	0 0	0 0	0 0	0 828	448	0 0	0 1264	0	0
PCE Adj:	1.00 1.00	0.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 0
MLF Adj:	1.05 1.05	0.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.03 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	0 0
Final Vol.:	10 445	0 0	0 0	0 0	0 0	0 853	448	0 0	0 1327	0	0

Saturation Flow Module:

	Vol/Sat:	Adj/Sat:	Lanes:	Final Sat.:
Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.04 1.96	1.00 0.00	0.00 0.00	2.00 1.00
Final Sat.:	81 3719	1900	0 0 0	3610 1900

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Green/Cycle:	Volume/Cap:	Uniform Del:	IncremntDel:	Delay Adj:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	DesignQueue:
Vol/Sat:	0.12 0.12	0.00 0.00	0.00 0.00	0.00 0.00	0.24 0.24	0.24 0.24	0.00 0.00	0.35 0.35	0.00 0.00	0.00 0.00	0.00 0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.16 0.16	0.00 0.00	0.00 0.00	0.00 0.00	0.31 0.77	0.77 0.31	0.00 0.00	0.46 0.46	0.00 0.00	0.00 0.00	0.00 0.00
Volume/Cap:	0.76 0.76	0.00 0.00	0.00 0.00	0.00 0.00	0.76 0.31	0.31 0.76	0.00 0.00	0.76 0.76	0.00 0.00	0.00 0.00	0.00 0.00
Uniform Del:	36.8 36.8	0.0 0.0	0.0 0.0	0.0 0.0	28.4 3.2	3.2 28.4	0.0 0.0	0.0 20.6	0.0 0.0	0.0 0.0	0.0 0.0
IncremntDel:	4.0 4.0	0.0 0.0	0.0 0.0	0.0 0.0	2.2 0.0	0.0 2.2	0.0 0.0	0.0 1.4	0.0 0.0	0.0 0.0	0.0 0.0
Delay Adj:	0.85 0.85	0.00 0.00	0.00 0.00	0.00 0.00	0.85 0.85	0.85 0.85	0.00 0.00	0.00 0.85	0.00 0.00	0.00 0.00	0.00 0.00
Delay/Veh:	35.3 35.3	0.0 0.0	0.0 0.0	0.0 0.0	26.4 2.8	2.8 26.4	0.0 0.0	0.0 18.9	0.0 0.0	0.0 0.0	0.0 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	35.3 35.3	0.0 0.0	0.0 0.0	0.0 0.0	26.4 2.8	2.8 26.4	0.0 0.0	0.0 18.9	0.0 0.0	0.0 0.0	0.0 0.0
DesignQueue:	13 13	0 0	0 0	0 0	21 7	7 21	0 0	0 26	0 0	0 0	0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
Operations Method (Base Volume Alternative)

Intersection #3

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.662

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 18.7

Optimal Cycle: 55 Level Of Service: C

\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Ignore			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	1!	0	0	1	0	1	0	1	2	0	2	0	1

Volume Module:

Base Vol:	63	20	0	9	4	376	331	1010	28	12	1048	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	20	0	9	4	376	331	1010	28	12	1048	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	67	21	0	10	4	400	352	1074	0	13	1115	1
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	67	21	0	10	4	400	352	1074	0	13	1115	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.1
Final Vol.:	74	21	0	10	4	400	363	1128	0	13	1226	2

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.54	0.46	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.95	0.0
Final Sat.:	4626	846	0	1805	1900	1615	3610	3800	1900	1805	5609	9

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.00	0.01	0.00	0.25	0.10	0.30	0.00	0.01	0.22	0.2
Crit Moves:	****			****	****	****	****	****	****	****		
Green/Cycle:	0.02	0.33	0.00	0.07	0.37	0.37	0.15	0.47	0.00	0.01	0.33	0.3
Volume/Cap:	0.66	0.08	0.00	0.08	0.01	0.66	0.66	0.63	0.00	0.63	0.66	0.6
Uniform Del:	36.8	17.6	0.0	33.1	14.9	19.8	30.4	15.1	0.0	37.4	21.8	21.
IncremntDel:	7.3	0.0	0.0	0.0	0.0	1.9	2.1	0.5	0.0	29.4	0.6	0.
Delay/Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.8
Delay/Veh:	38.5	14.9	0.0	28.1	12.7	18.7	27.9	13.4	0.0	61.2	19.2	19.
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
AdjDel/Veh:	38.5	14.9	0.0	28.1	12.7	18.7	27.9	13.4	0.0	61.2	19.2	19.
DesignQueue:	2	2	0	0	0	15	9	18	0	1	16	1

\*\*\*\*\*

Note: Queue reported is the number of cars per lane

\*\*\*\*\* Equal opportunity is the law of our land.

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Level Of Service Computation Report  
CM Operations Method (Base Volume Alternative)

```

*****
Intersection #4
*****
Cycle (sec): 120 Critical Vol./Cap.(X): 0.433
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 11.8
Optimal Cycle: 31 Level Of Service: B
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 0 0 1 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0
*****
Volume Module:
Base Vol: 0 0 0 67 0 138 163 860 0 0 941 67
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 67 0 138 163 860 0 0 941 67
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 0 0 0 72 0 148 175 925 0 0 1012 72
Reducet Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 72 0 148 175 925 0 0 1012 72
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.00 1.00 1.10 1.10 1.10
Final Vol.: 0 0 0 72 0 148 175 971 0 0 1113 79
*****
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.95 1.00 0.85 0.95 1.00 1.00 1.00 0.99 0.99
Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 2.00 0.00 0.00 2.80 0.20
Final Sat.: 0 0 0 1805 0 1615 1805 3800 0 0 5268 375
*****
Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.09 0.10 0.26 0.00 0.00 0.21 0.21
Crit Moves: **** * **** ****
Green/Cycle: 0.00 0.00 0.00 0.21 0.00 0.21 0.22 0.71 0.00 0.00 0.49 0.49
Volume/Cap: 0.00 0.00 0.00 0.19 0.00 0.43 0.43 0.36 0.00 0.00 0.43 0.43
Uniform Del: 0.0 0.0 0.0 29.5 0.0 31.2 30.4 5.1 0.0 0.0 15.1 15.1
IncrementDel: 0.0 0.0 0.0 0.0 0.0 0.6 0.5 0.0 0.0 0.0 0.1 0.1
Delay Adj: 0.00 0.00 0.00 0.85 0.00 0.85 0.85 0.85 0.00 0.00 0.85 0.85
Delay/Veh: 0.0 0.0 0.0 25.1 0.0 27.0 26.3 4.3 0.0 0.0 12.9 12.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.25 0.0 0.27 0.26 3.4 0.0 0.0 12.9 12.9
DesignQueue: 0 0 0 4 0 8 9 10 0 0 14 14
*****

```

Note: Queue reported is the number of cars per lane

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-----  
Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 0.8 Worst Case Level Of Service: F[ 89.2]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 15 0 4 0 0 0 0 908 16 10 967 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 15 0 4 0 0 0 0 908 16 10 967 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 16 0 0 0 0 0 0 998 18 11 1063 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Final Vol.: 16 0 0 0 0 0 0 998 18 11 1063 0  
|-----|-----|-----|-----|  
Critical Gap Module:  
Critical Gp: 6.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: 2082 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 1015 xxxx xxxx  
Potent Cap.: 59 xxxx xxxx xxxx xxxx xxxx xxxx 691 xxxx xxxx  
Move Cap.: 58 xxxx xxxx xxxx xxxx xxxx xxxx 691 xxxx xxxx  
Volume/Cap: 0.28 xxxx xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 1.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx  
Control Del: 89.2 xxxx xxxx xxxx xxxx xxxx xxxx 10.3 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx  
Shrd ConDel:xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 89.2 xxxxxx xxxxxx xxxxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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-----  
Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 3.9 Worst Case Level Of Service: F[200.4]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 0 28 0 172 127 713 0 0 904 66  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 28 0 172 127 713 0 0 904 66  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.00 0.87 0.87 0.87 0.87 0.87  
PHF Volume: 0 0 0 0 32 0 0 146 820 0 0 1039 76  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Final Vol.: 0 0 0 0 32 0 0 146 820 0 0 1039 76  
|-----|-----|-----|-----|  
Critical Gap Module:  
Critical Gp:xxxx xxxx xxxx 6.4 xxxx xxxx 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxx xxxx xxxx 3.5 xxxx xxxx 2.2 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 2151 xxxx xxxx 1115 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 54 xxxx xxxx 634 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 44 xxxx xxxx 634 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.73 xxxx xxxx 0.23 xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 2.8 xxxx xxxx 0.9 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxx xxxx xxxx 200.4 xxxx xxxx 12.4 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* \* B \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxxxx 200.4 xxxxxx  
ApproachLOS: \* F \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.300  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 9.2  
Optimal Cycle: 0 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 0 0

Volume Module:  
Base Vol: 0 0 0 143 1 52 0 70 69 50 52 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 143 1 52 0 70 69 50 52 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78  
PHF Volume: 0 0 0 183 1 67 0 90 88 64 67 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 183 1 67 0 90 88 64 67 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 0 0 0 183 1 67 0 90 88 64 67 0

Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.50 0.50 0.49 0.51 0.00  
Final Sat.: 0 0 0 611 4 772 0 395 389 350 364 0

Capacity Analysis Module:  
Vol/Sat: xxxx xxxx xxxx 0.30 0.30 0.09 xxxx 0.23 0.23 0.18 0.18 xxxx  
Crit Moves: \*\*\*\* \*  
Delay/Veh: 0.0 0.0 0.0 10.7 10.7 7.6 0.0 8.6 8.6 8.9 8.9 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 10.7 10.7 7.6 0.0 8.6 8.6 8.9 8.9 0.0  
LOS by Move: \* \* \* B A \* A A A A \*  
ApproachDel: xxxx 9.9 8.6 8.9  
Delay Adj: xxxx 1.00 1.00  
ApprAdjDel: xxxx 9.9 8.6 8.9  
LOS by Appr: \* A A A A  
AllWayAvgQ: 0.0 0.0 0.0 0.4 0.4 0.1 0.3 0.3 0.3 0.2 0.2 0.2

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.429  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 0 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:  
Base Vol: 21 95 0 0 0 97 230 0 0 0 0 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 21 95 0 0 0 97 230 0 0 0 0 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73  
PHF Volume: 29 130 0 0 0 133 315 0 0 0 0 0 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 29 130 0 0 0 133 315 0 0 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 29 130 0 0 0 133 315 0 0 0 0 0 0 0 0

Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.18 0.82 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00  
Final Sat.: 128 577 0 0 0 791 735 0 0 0 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.23 0.23 xxxx xxxx xxxx 0.17 0.43 xxxx xxxx xxxx xxxx xxxx  
Crit Moves: \*\*\* \*  
Delay/Veh: 9.2 9.2 0.0 0.0 0.0 8.1 11.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 9.2 9.2 0.0 0.0 0.0 8.1 11.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
LOS by Move: A A \* \* \* A B \* \* \* \* \* \*  
ApproachDel: 9.2 8.1 11.1 xxxx  
Delay Adj: 1.00 1.00 xxxx  
ApprAdjDel: 9.2 8.1 11.1 xxxx  
LOS by Appr: A A B \*  
AllWayAvgQ: 0.3 0.3 0.3 0.2 0.2 0.2 0.7 0.7 0.7 0.7 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

## **Background Conditions AM Peak Hour**

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.673  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 40 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1:0 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 441 0 2 0 1113 0 0 0 1700 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 441 0 2 0 1113 0 0 0 1700 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 469 0 2 0 1184 0 0 0 1809 0	
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 469 0 2 0 1184 0 0 0 1809 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 469 0 2 0 1302 0 0 0 1989 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.99 0.00 0.01 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1617 0 7 0 5700 0 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.23 0.00 0.00 0.35 0.00
Crit Moves:	****
Green/Cycle:	0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.52 0.00 0.00 0.52 0.00
Volume/Cap:	0.00 0.00 0.00 0.67 0.00 0.67 0.00 0.44 0.00 0.00 0.67 0.00
Uniform Del:	0.0 0.0 0.0 20.8 0.0 20.8 0.0 13.7 0.0 0.0 16.2 0.0
IncremntDel:	0.0 0.0 0.0 1.8 0.0 1.8 0.0 0.1 0.0 0.0 0.4 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 19.4 0.0 19.4 0.0 11.7 0.0 0.0 14.2 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 19.4 0.0 19.4 0.0 11.7 0.0 0.0 14.2 0.0
DesignQueue:	0 0 0 19 0 19 0 15 0 0 23 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.754  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 61 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1 0 1 0 0 0 0 0 0 0 0 0 2 0 1 0 0 0 0 0 2 0 1			

Volume Module:

	Base Vol: 23 201 860 0 0 0 608 780 0 0 1544 219
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	23 201 860 0 0 0 608 780 0 0 1544 219
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:	24 212 0 0 0 640 821 0 0 1625 0
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	24 212 0 0 0 640 821 0 0 1625 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
FinalVolume:	25 222 0 0 0 659 821 0 0 1707 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.99 0.99 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.21 1.79 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	386 3376 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.07 0.07 0.00 0.00 0.00 0.00 0.18 0.43 0.00 0.00 0.45 0.00
Crit Moves:	****
Green/Cycle:	0.09 0.09 0.00 0.00 0.00 0.00 0.24 0.84 0.00 0.00 0.60 0.00
Volume/Cap:	0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.52 0.00 0.00 0.75 0.00
Uniform Del:	40.7 40.7 0.0 0.0 0.0 0.0 32.0 2.1 0.0 0.0 13.5 0.0
IncremntDel:	6.5 6.5 0.0 0.0 0.0 0.0 2.6 0.2 0.0 0.0 1.0 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	41.0 41.0 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	41.0 41.0 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
DesignQueue:	8 8 0 0 0 0 17 10 0 0 26 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.682  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	41	3	1	9	29	347	319	1007	346	14	1382	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	3	1	9	29	347	319	1007	346	14	1382	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	42	3	1	9	30	358	329	1038	0	14	1425	5
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	3	1	9	30	358	329	1038	0	14	1425	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	46	3	1	9	30	358	339	1090	0	14	1567	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.79	0.16	0.05	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01
Final Sat.:	5089	287	96	1805	1900	1615	3610	3800	1900	1805	5679	21

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.01	0.02	0.22	0.09	0.29	0.00	0.01	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.23	0.23	0.11	0.32	0.32	0.14	0.53	0.00	0.01	0.40	0.40
Volume/Cap:	0.68	0.05	0.05	0.05	0.05	0.68	0.68	0.54	0.00	0.54	0.68	0.68
Uniform Del:	37.3	22.8	22.8	30.3	17.6	22.3	31.2	11.9	0.0	37.2	18.6	18.6
IncremntDel:	14.5	0.0	0.0	0.0	0.0	2.5	2.6	0.2	0.0	14.1	0.6	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	46.3	19.4	19.4	25.8	15.0	21.4	29.2	10.4	0.0	45.8	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.3	19.4	19.4	25.8	15.0	21.4	29.2	10.4	0.0	45.8	16.4	16.4
DesignQueue:	1	1	1	0	1	14	8	15	0	1	19	19

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.426  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 5.5  
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 1 0 0 0 0 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	74	0	44	74	981	0	0	1351	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	74	0	44	74	981	0	0	1351	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	80	0	47	80	1055	0	0	1453	118
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	80	0	47	80	1055	0	0	1453	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	80	0	47	80	1108	0	0	1598	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.77	0.23
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5218	425

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.03	0.04	0.29	0.00	0.00	0.31	0.31
Crit Moves:	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Green/Cycle:	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.82	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.43	0.00	0.28	0.43	0.35	0.00	0.00	0.43	0.43
Uniform Del:	0.0	0.0	0.0	38.3	0.0	37.8	38.3	2.0	0.0	0.0	5.2	5.2
IncremntDel:	0.0	0.0	0.0	1.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
DesignQueue:	0	0	0	5	0	3	5	7	0	0	12	12

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[174.3]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	5 0 4 0 0 0	0 1101 12 13 1453 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	5 0 4 0 0 0	0 1101 12 13 1453 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.00 0.98 0.98 0.98	0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	5 0 0 0 0 0	0 1123 12 13 1483 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
FinalVolume:	5 0 0 0 0 0	0 1123 12 13 1483 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx 6.2 xxxx xxxx xxxx xxxx xxxx xxxx	4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx 3.3 xxxx xxxx xxxx xxxx xxxx	2.2 xxxx xxxx

---

Capacity Module:

Cnflict Vol:	2633 xxxx 1123 xxxx xxxx xxxx xxxx xxxx	1136 xxxx xxxx
Potent Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx	623 xxxx xxxx
Move Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx	623 xxxx xxxx
Volume/Cap:	0.20 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx	0.02 xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	0.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	0.1 xxxx xxxx
Control Del:	174.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx	10.9 xxxx xxxx
LOS by Move:	F * * * * * * * * B *	*
Movement:	LT - LTR - RT LT - LTR - RT LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * * * * * *	*
ApproachDel:	174.3 xxxxxx	xxxxxx
ApproachLOS:	F *	*

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[329.2]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 29 0 196	70 979 0 0 1251 359
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 29 0 196	70 979 0 0 1251 359
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98 0.98 0.98 0.98	0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	0 0 0 30 0 0	71 999 0 0 1277 366
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
FinalVolume:	0 0 0 30 0 0	71 999 0 0 1277 366

---

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol:	xxxxx xxxx xxxx 2418 xxxx 1277 1643 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 36 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 31 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 0.95 xxxx 0.00 0.18 xxxx xxxx xxxx xxxx

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Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx 3.2 xxxx xxxx 0.6 xxxx xxxx xxxx xxxx xxxx	
Control Del:	xxxxx xxxx xxxx 329.2 xxxx xxxx 16.0 xxxx xxxx xxxx xxxx xxxx	
LOS by Move:	* * * F * * C * * * *	
Movement:	LT - LTR - RT LT - LTR - RT LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * * * * * *	*
ApproachDel:	xxxxxx 329.2	xxxxxx
ApproachLOS:	F *	*

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Note: Queue reported is the number of cars per lane.

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AM Back

Mon May 14, 2007 13:49:16

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.295  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.7  
Optimal Cycle: 20 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0

Volume Module:

Base Vol:	0	0	0	256	2	45	0	27	6	82	27	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	256	2	45	0	27	6	82	27	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	0	0	301	2	53	0	32	7	96	32	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	301	2	53	0	32	7	96	32	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	301	2	53	0	32	7	96	32	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.88	0.88	0.87	0.87	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.82	0.18	0.75	0.25	0.00
Final Sat.:	0	0	0	1602	13	1615	0	1368	304	1244	409	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.03	0.00	0.02	0.02	0.08	0.08	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.64	0.64	0.64	0.00	0.26	0.26	0.26	0.26	0.00
Volume/Cap:	0.00	0.00	0.00	0.30	0.30	0.05	0.00	0.09	0.09	0.30	0.30	0.00
Uniform Del:	0.0	0.0	0.0	3.7	3.7	3.1	0.0	12.7	12.7	13.4	13.4	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	3.2	3.2	2.6	0.0	10.8	10.8	11.5	11.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	3.2	3.2	2.6	0.0	10.8	10.8	11.5	11.5	0.0
DesignQueue:	0	0	0	4	4	1	0	1	1	3	3	0

Note: Queue reported is the number of cars per lane.

AM Back

Mon May 14, 2007 13:49:16

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.509  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Base Vol:	31	307	0	0	0	75	285	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	307	0	0	0	75	285	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	34	334	0	0	0	82	310	0	0	0	0	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	334	0	0	0	82	310	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	334	0	0	0	82	310	0	0	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.91	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	66	655	0	0	0	732	671	0	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.51	0.51	xxxx	xxxx	xxxx	0.11	0.46	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	12.4	12.4	0.0	0.0	0.0	8.1	12.1	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.4	12.4	0.0	0.0	0.0	8.1	12.1	0.0	0.0	0.0	0.0	0.0
LOS by Move:	B	B	*	*	*	A	B	*	*	*	*	*
ApproachDel:	12.4					8.1			12.1			xxxxxx
Delay Adj:						1.00						xxxxxx
ApprAdjDel:						12.4			8.1			xxxxxx
LOS by Appr:						B			A			*
AllWayAvg:	0.9	0.9	0.9	0.9	0.9	0.1	0.1	0.1	0.1	0.7	0.7	0.7

Note: Queue reported is the number of cars per lane.

## **Background Conditions Midday Peak Hour**

### Mid Back

Wed May 16, 2007 17:04:55

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #1
*****
Cycle (sec):           120          Critical Vol./Cap.(X):      0.401
Loss Time (sec):        6 (Y+R=4.0 sec)  Average Delay (sec/veh):   5.3
Optimal Cycle:          26          Level Of Service:          B
*****
Approach:    North Bound     South Bound     East Bound     West Bound
Movement:   L - T - R       L - T - R       L - T - R       L - T - R
Control:    Permitted      Permitted      Protected      Protected
Rights:     Include        Include        Include        Include
Min. Green:  0             0             10            0             0             10            0             0             0
Lanes:      0 0 0 0 0       0 0 1! 0 0       0 0 3 0 0       0 0 3 0 0
Volume Module:
Base Vol.:   0             0             128            0             9             0             1340            0             0             1132            0
Growth Adj:  1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00
Initial Bse: 0             0             128            0             9             0             1340            0             0             1132            0
User Adj:   1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00
PHF Adj:   0.90          0.90          0.90          0.90          0.90          0.90          0.90          0.90          0.90          0.90
PHF Volume: 0             0             142            0             10            0             1489            0             0             1258            0
Reduc Vol.: 0             0             0              0             0              0             0              0             0             0             0
Reduced Vol.: 0             0             0             142            0             10            0             1489            0             0             1258            0
PCE Adj:   1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00
MLF Adj:   1.00          1.00          1.00          1.00          1.00          1.00          1.10          1.00          1.00          1.10
FinalVolume: 0             0             142            0             10            0             1638            0             0             1384            0
Saturation Flow Module:
Sat/Lane:   1900          1900          1900          1900          1900          1900          1900          1900          1900          1900
Adjustment: 1.00          1.00          1.00          0.85          1.00          0.85          1.00          1.00          1.00          1.00
Lanes:      0.00          0.00          0.00          0.93          0.00          0.07          0.00          3.00          0.00          3.00
Final Sat.: 0             0             1517          0             107            0             5700            0             0             5700            0
Capacity Analysis Module:
Vol/Sat:   0.00          0.00          0.00          0.09          0.00          0.09          0.00          0.29          0.00          0.00          0.24          0.00
Crit Moves: ****          ****          ****          ****          ****          ****          ****          ****          ****          ****          ****          ****
Green/Cycle: 0.00          0.00          0.00          0.23          0.00          0.23          0.00          0.72          0.00          0.00          0.72          0.00
Volume/Cap: 0.00          0.00          0.00          0.40          0.00          0.40          0.00          0.40          0.00          0.00          0.34          0.00
Uniform Del: 0.0          0.0          0.0          0.295         0.0          0.295         0.5          0.0          5.2          0.0          0.0          4.8          0.0
IncremntlDel: 0.0          0.0          0.0          0.4          0.0          0.4          0.0          0.0          0.0          0.0          0.0          0.0          0.0
Delay Adj:  0.00          0.00          0.00          0.85          0.00          0.85          0.00          0.85          0.00          0.00          0.85          0.00
Delay/Veh:  0.0          0.0          0.0          25.5          0.0          25.5          0.4          0.4          4.4          0.0          0.0          4.1          0.0
User Deladj: 1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00          1.00
AdjDel/Veh: 0.0          0.0          0.0          25.5          0.0          25.5          0.0          4.4          0.0          0.0          4.1          0.0
DesignQueue: 0             0             8              0             8              0             11            0             0             9
*****
```

Note: Queue reported is the number of cars per lane.

Mid Back Wed May 16, 2007 17:04:55

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Level Of Service Computation Report  
94 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #2
*****
Cycle (sec): 120 Critical Vol./Cap.(X): 0.751
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6
Optimal Cycle: 61 Level Of Service: C
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Protected Protected
Rights: Ignore Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 1 1 0 1 0 0 0 0 2 0 1 0 0 0 0 2 0 1
Volume Module:
Base Vol.: 1 395 881 0 0 0 912 525 0 0 1026 324
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 1 395 881 0 0 0 912 525 0 0 1026 324
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.94 0.94 0.00 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume: 1 420 0 0 0 970 559 0 0 1091 0
Reduc Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol.: 1 420 0 0 0 970 559 0 0 1091 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.00 1.00 1.00 1.05 0.00
Final Volume: 1 441 0 0 0 999 559 0 0 1146 0
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.01 1.99 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.: 10 3790 1900 0 0 0 3610 1900 0 0 3800 1900
Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.00 0.00 0.00 0.00 0.28 0.29 0.00 0.00 0.00 0.30 0.00
Crit Moves: ****
Green/Cycle: 0.15 0.15 0.00 0.00 0.00 0.00 0.37 0.77 0.00 0.00 0.00 0.40 0.00
Volume/Cap: 0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.38 0.00 0.00 0.00 0.75 0.00
Uniform Del: 36.9 36.9 0.0 0.0 0.0 0.0 25.1 3.4 0.0 0.0 0.0 23.4 0.0
IncremntlDel: 3.7 3.7 0.0 0.0 0.0 0.0 1.7 0.1 0.0 0.0 0.0 1.5 0.0
Delay Adj: 0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.00 0.85 0.00
Delay/Veh: 35.0 35.0 0.0 0.0 0.0 0.0 23.1 3.0 0.0 0.0 0.0 21.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 35.0 35.0 0.0 0.0 0.0 0.0 23.1 3.0 0.0 0.0 0.0 21.4 0.0
DesignQueue: 13 13 0 0 0 0 23 9 0 0 0 25
*****

```

Note: Queue reported is the number of cars per lane



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-----  
Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 7.0 Worst Case Level Of Service: F[217.3]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 1 1 0 1 0 0  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 63 0 14 0 0 0 0 1025 12 5 867 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 63 0 14 0 0 0 0 1025 12 5 867 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 66 0 0 0 0 0 0 1079 13 5 913 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Final Volume: 66 0 0 0 0 0 0 1079 13 5 913 0  
|-----|-----|-----|-----|  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: 2002 xxxx 1079 xxxx xxxx xxxx xxxx xxxx 1092 xxxx xxxx  
Potent Cap.: 66 xxxx 268 xxxx xxxx xxxx xxxx xxxx 647 xxxx xxxx  
Move Cap.: 66 xxxx 268 xxxx xxxx xxxx xxxx xxxx 647 xxxx xxxx  
Volume/Cap: 1.00 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.01 xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 5.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx  
Control Del: 217.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel: xxxx  
Shared LOS: \*  
ApproachDel: 217.3 xxxxxxxx xxxxxxxx xxxxxxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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-----  
Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 4.1 Worst Case Level Of Service: F[157.1]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 0 37 0 116 164 825 0 0 684 143  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 37 0 116 164 825 0 0 684 143  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93  
PHF Volume: 0 0 0 0 40 0 0 176 887 0 0 735 154  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Final Volume: 0 0 0 0 40 0 0 176 887 0 0 735 154  
|-----|-----|-----|-----|  
Critical Gap Module:  
Critical Gp: xxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim: xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 1975 xxxx 735 889 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 69 xxxx 423 770 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 57 xxxx 423 770 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.70 xxxx 0.00 0.23 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 2.9 xxxx xxxx 0.9 xxxx xxxx xxxx xxxx xxxx  
Control Del: xxxx xxxx xxxx 157.1 xxxx xxxx 11.1 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* \* B \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel: xxxx  
Shared LOS: \*  
ApproachDel: 157.1 xxxxxxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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-----  
Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #7  
\*\*\*\*\*  
Cycle (sec): 60 Critical Vol./Cap.(X): 0.371  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.8  
Optimal Cycle: 22 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 220 1 86 0 171 115 85 61 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 220 1 86 0 171 115 85 61 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
PHF Volume: 0 0 0 234 1 91 0 182 122 90 65 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 234 1 91 0 182 122 90 65 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Volume: 0 0 0 234 1 91 0 182 122 90 65 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.85 0.85 1.00 0.85 0.85 0.62 0.62 1.00  
Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.60 0.40 0.58 0.42 0.00  
Final Sat.: 0 0 0 1608 7 1615 0 966 649 686 492 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.15 0.15 0.06 0.00 0.19 0.19 0.13 0.13 0.00  
Crit Moves: \*\*\*\* \*  
Green/Cycle: 0.00 0.00 0.00 0.39 0.39 0.39 0.00 0.51 0.51 0.51 0.51 0.00  
Volume/Cap: 0.00 0.00 0.00 0.37 0.37 0.14 0.00 0.37 0.37 0.26 0.26 0.00  
Uniform Del: 0.0 0.0 0.0 9.9 9.9 8.9 0.0 6.8 6.8 6.4 6.4 0.0  
IncremntDel: 0.0 0.0 0.0 0.2 0.2 0.0 0.0 0.1 0.1 0.1 0.1 0.0  
Delay Adj: 0.00 0.00 0.00 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00  
Delay/Veh: 0.0 0.0 0.0 8.6 8.6 7.6 0.0 5.9 5.9 5.5 5.5 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 8.6 8.6 7.6 0.0 5.9 5.9 5.5 5.5 0.0  
DesignQueue: 0 0 0 5 5 2 0 5 5 3 3 0  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #8  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.575  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 0 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 65 79 0 0 0 88 397 0 0 0 0 0 0 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 65 79 0 0 0 88 397 0 0 0 0 0 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92  
PHF Volume: 71 86 0 0 0 96 432 0 0 0 0 0 0 0 0 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 71 86 0 0 0 96 432 0 0 0 0 0 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Volume: 71 86 0 0 0 96 432 0 0 0 0 0 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.45 0.55 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
Final Sat.: 296 360 0 0 0 726 750 0 0 0 0 0 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Analysis Module:  
Vol/Sat: 0.24 0.24 xxxx xxxx xxxx 0.13 0.58 xxxx xxxx xxxx xxxx xxxx  
Crit Moves: \*\*\*\* \*  
Delay/Veh: 9.6 9.6 0.0 0.0 0.0 8.2 13.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 9.6 9.6 0.0 0.0 0.0 8.2 13.6 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
LOS by Move: A A \* \* \* A B \* \* \* \* \* \* \*  
ApproachDel: 9.6 8.2 13.6 xxxxxxxx  
Delay Adj: 1.00 1.00 xxxxxxxx  
ApprAdjDel: 9.6 8.2 13.6 xxxxxxxx  
LOS by Appr: A A B \* \* \* \* \* \* \*  
AllWayAvg: 0.3 0.3 0.3 0.1 0.1 0.1 1.2 1.2 1.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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**Background Conditions  
PM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

---

Intersection #1

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.587  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2  
Optimal Cycle: 33 Level Of Service: B

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 0 10 0
Lanes:	0 0 0 0	0 0 1:0 0	0 0 3 0	0 0 3 0

---

Volume Module:

Base Vol:	0 0 0 0	252 0 8 0	1096 0 0 0	1889 0	
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 0 0	252 0 8 0	1096 0 0 0	1889 0	
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.94 0.94	0.94 0.94	0.94 0.94	0.94 0.94	0.94 0.94
PHF Volume:	0 0 0	268 0 9 0	1166 0 0 0	2010 0	
Reduc Vol:	0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Reduced Vol:	0 0 0	268 0 9 0	1166 0 0 0	2010 0	
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	0 0 0	268 0 9 0	1283 0 0 0	2211 0	

---

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	1.00 0.86	1.00 0.86	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.00 0.00	0.00 0.97	0.00 0.03	0.00 3.00	0.00 0.00	0.00 3.00	0.00 0.00	0.00 3.00	0.00 0.00	0.00 3.00	0.00 0.00	0.00 3.00
Final Sat.:	0 0 0	1575 0 50	0 5700 0	0 0 5700	0 0 0	0 0 5700	0 0 0	0 0 5700	0 0 0	0 0 5700	0 0 0	0 0 5700

---

Capacity Analysis Module:

Vol/Sat:	0.00 0.00	0.00 0.17	0.00 0.17	0.00 0.23	0.00 0.00	0.39 0.00
Crit Moves:	****	****	****	****	****	****
Green/Cycle:	0.00 0.00	0.00 0.29	0.00 0.29	0.00 0.66	0.00 0.00	0.66 0.00
Volume/Cap:	0.00 0.00	0.00 0.59	0.00 0.59	0.00 0.34	0.00 0.00	0.59 0.00
Uniform Del:	0.0 0.0	0.0 27.7	0.0 27.7	0.0 6.8	0.0 0.0	8.6 0.0
IncremntDel:	0.0 0.0	0.0 1.4	0.0 1.4	0.0 0.0	0.0 0.0	0.2 0.0
Delay Adj:	0.00 0.00	0.00 0.85	0.00 0.85	0.00 0.00	0.00 0.00	0.85 0.00
Delay/Veh:	0.0 0.0	0.0 25.0	0.0 25.0	0.0 5.8	0.0 0.0	7.5 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	0.0 0.0	0.0 25.0	0.0 25.0	0.0 5.8	0.0 0.0	7.5 0.0
DesignQueue:	0 0 0	0 14 0	0 14 0	0 10 0	0 0 0	19 0

---

Note: Queue reported is the number of cars per lane.

---

Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

---

Intersection #2

---

Cycle (sec): 120 Critical Vol./Cap.(X): 1.081  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 61.5  
Optimal Cycle: 180 Level Of Service: F

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	2 0 1 0 0	0 0 2 0 1

---

Volume Module:

Base Vol:	6 739 974 0 0 0	896 592 0 0 1660 400
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	6 739 974 0 0 0	896 592 0 0 1660 400
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.00 0.92 0.92 0.92	0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume:	7 803 0 0 0 0	974 643 0 0 1804 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
Reduced Vol:	7 803 0 0 0 0	974 643 0 0 1804 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00	1.03 1.00 1.00 1.00 1.00 1.05 0.00
FinalVolume:	7 843 0 0 0 0	1003 643 0 0 1895 0

---

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.02 1.98	1.00 0.00	0.00 0.00	0.00 2.00	1.00 0.00	0.00 0.00	2.00 1.00	0.00 0.00	0.00 2.00	1.00 0.00	0.00 2.00	1.00 0.00
Final Sat.:	31 3769	1900 0 0 0	3610 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0	3800 1900 0 0

---

Capacity Analysis Module:

Vol/Sat:	0.22 0.22	0.00 0.00	0.00 0.00	0.00 0.28	0.34 0.00	0.00 0.00	0.50 0.00
Crit Moves:	****	****	****	****	****	****	****
Green/Cycle:	0.21 0.21	0.00 0.00	0.00 0.00	0.00 0.26	0.72 0.00	0.00 0.00	0.46 0.00
Volume/Cap:	1.08 1.08	0.00 0.00	0.00 0.00	1.08 0.47	0.00 0.00	1.08 0.00	0.00 0.00
Uniform Del:	36.2 36.2	0.0 0.0	0.0 0.0	33.9 5.5	0.0 0.0	0.0 0.0	24.6 0.0
IncremntDel:	50.7 50.7	0.0 0.0	0.0 0.0	48.6 0.2	0.0 0.0	0.0 0.0	42.4 0.0
Delay Adj:	0.85 0.85	0.00 0.00	0.00 0.00	0.85 0.85	0.00 0.00	0.00 0.00	0.85 0.00
Delay/Veh:	81.4 81.4	0.0 0.0	0.0 0.0	77.4 4.9	0.0 0.0	0.0 0.0	63.3 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	81.4 81.4	0.0 0.0	0.0 0.0	77.4 4.9	0.0 0.0	0.0 0.0	63.3 0.0
DesignQueue:	24 24	0 0	0 0	27 13	0 0	0 0	39 0

---

Note: Queue reported is the number of cars per lane.

---

Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 1.011  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 40.8  
Optimal Cycle: 180 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	312	4	0	45	9	594	340	1160	3	5	1486	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	312	4	0	45	9	594	340	1160	3	5	1486	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	339	4	0	49	10	646	370	1261	0	5	1615	17
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	339	4	0	49	10	646	370	1261	0	5	1615	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	373	4	0	49	10	646	381	1324	0	5	1777	19

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.97	0.03	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.97	0.03
Final Sat.:	5354	61	0	1805	1900	1615	3610	3800	1900	1805	5639	61

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.00	0.03	0.01	0.40	0.11	0.35	0.00	0.00	0.32	0.32
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.07	0.34	0.00	0.13	0.40	0.40	0.10	0.41	0.00	0.00	0.31	0.31
Volume/Cap:	1.01	0.21	0.00	0.21	0.01	1.01	1.01	0.85	0.00	0.85	1.01	1.01
Uniform Del:	35.4	18.0	0.0	29.7	14.0	23.0	34.0	20.1	0.0	37.8	26.2	26.2
IncremntDel:	38.9	0.0	0.0	0.1	0.0	30.2	38.7	3.2	0.0	161.1	19.0	19.0
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.0	15.3	0.0	25.3	11.9	49.8	67.7	20.3	0.0	193.2	41.3	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.0	15.3	0.0	25.3	11.9	49.8	67.7	20.3	0.0	193.2	41.3	41.3
DesignQueue:	7	5	0	2	0	24	10	24	0	0	25	25

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.727  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	134	0	471	110	1255	0	0	1110	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	134	0	471	110	1255	0	0	1110	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	141	0	496	116	1321	0	0	1168	198
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	141	0	496	116	1321	0	0	1168	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	141	0	496	116	1387	0	0	1285	218

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.57	0.43
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	4777	809

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.31	0.06	0.37	0.00	0.00	0.27	0.27
Crit Moves:	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
Green/Cycle:	0.00	0.00	0.00	0.42	0.00	0.42	0.10	0.50	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.73	0.66	0.73	0.00	0.00	0.66	0.66
Uniform Del:	0.0	0.0	0.0	0.16.5	0.0	21.9	39.8	17.8	0.0	0.0	22.0	22.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	2.7	6.1	1.0	0.0	0.0	0.5	0.5
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
DesignQueue:	0	0	0	6	0	20	7	25	0	0	21	21

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[447.1]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	11	0	8	0	0	0	1460	5	7	1211	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	11	0	8	0	0	0	1460	5	7	1211	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
PHF Volume:	12	0	0	0	0	0	1604	5	8	1331	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	12	0	0	0	0	0	1604	5	8	1331	0

---

Critical Gap Module:

Critical Gp:	6.4	xxxxx	6.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxxx	3.3	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.2	xxxx	xxxxx

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Capacity Module:

Cnflct Vol:	2951	xxxxx	1604	xxxx	xxxx	xxxx	xxxx	xxxx	1610	xxxx	xxxxx
Potent Cap.:	16	xxxxx	131	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	411	xxxx	xxxxx
Move Cap.:	16	xxxxx	131	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	411	xxxx	xxxxx
Volume/Cap:	0.74	xxxxx	0.00	xxxxx	xxxx	xxxx	xxxx	xxxx	0.02	xxxx	xxxxx

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Level Of Service Module:

2Way95thQ:	1.9	xxxxx	xxxx	0.1	xxxx	xxxxx						
Control Del:	447.1	xxxxx	13.9	xxxx	xxxxx							
LOS by Move:	F	*	*	*	*	*	*	*	B	*	*	
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx											
SharedQueue:	xxxx											
Shrd ConDel:	xxxx											
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	447.1	xxxxxx										
ApproachLOS:	F	*	*	*	*	*	*	*	*	*	*	

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 42.2 Worst Case Level Of Service: F[3013.0]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0	0	0	40	0	105	193	1368	0	0	1021	328
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	0	40	0	105	193	1368	0	0	1021	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	
PHF Volume:	0	0	0	45	0	0	217	1537	0	0	1147	369
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	0	0	0	45	0	0	217	1537	0	0	1147	369

---

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	xxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxxx	xxxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxx	xxxxx

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Capacity Module:

Cnflct Vol:	xxxxx	xxxxx	xxxxx	3118	xxxxx	1147	1516	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	xxxxx	13	xxxxx	244	447	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	8	xxxxx	244	447	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	xxxxx	5.67	xxxxx	0.00	0.49	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

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Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	7.0	xxxxx	xxxxx	2.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	3013	xxxxx	xxxxx	20.4	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	
LOS by Move:	*	*	*	F	*	*	C	*	*	*	*	
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx											
SharedQueue:	xxxx											
Shrd ConDel:	xxxx											
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	
ApproachDel:	xxxxxx	xxxxxx	3013.0	xxxxxx								
ApproachLOS:	*	*	*	F	*	*	*	*	*	*	*	

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.512  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 7.7  
Optimal Cycle: 27 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 0

Volume Module:  
Base Vol: 0 0 0 260 1 29 0 52 33 277 16 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 260 1 29 0 52 33 277 16 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85 0.85  
PHF Volume: 0 0 0 306 1 34 0 61 39 326 19 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 306 1 34 0 61 39 326 19 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 0 0 0 306 1 34 0 61 39 326 19 0

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 1.00 0.85 0.85 0.67 0.67 1.00  
Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.61 0.39 0.95 0.05 0.00  
Final Sat.: 0 0 0 1609 6 1615 0 988 627 1203 70 0

Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.19 0.19 0.02 0.00 0.06 0.06 0.27 0.27 0.00  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.37 0.37 0.37 0.00 0.53 0.53 0.53 0.53 0.00  
Volume/Cap: 0.00 0.00 0.00 0.51 0.51 0.06 0.00 0.12 0.12 0.51 0.51 0.00  
Uniform Del: 0.0 0.0 0.0 11.1 11.1 9.2 0.0 5.4 5.4 6.9 6.9 0.0  
IncremntDel: 0.0 0.0 0.0 0.6 0.6 0.0 0.0 0.0 0.0 0.6 0.6 0.0  
Delay Adj: 0.00 0.00 0.00 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00  
Delay/Veh: 0.0 0.0 0.0 10.1 10.1 7.8 0.0 4.6 4.6 6.5 6.5 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 10.1 10.1 7.8 0.0 4.6 4.6 6.5 6.5 0.0  
DesignQueue: 0 0 0 7 7 1 0 2 2 6 6 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.512  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.2  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:  
Base Vol: 12 138 0 0 0 278 322 0 0 0 0 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 12 138 0 0 0 278 322 0 0 0 0 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93  
PHF Volume: 13 148 0 0 0 299 346 0 0 0 0 0 0 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 13 148 0 0 0 299 346 0 0 0 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 13 148 0 0 0 299 346 0 0 0 0 0 0 0 0 0

Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.08 0.92 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00  
Final Sat.: 53 604 0 0 0 773 676 0 0 0 0 0 0 0 0

Capacity Analysis Module:  
Vol/Sat: 0.25 0.25 xxxx xxxx xxxx 0.39 0.51 xxxx xxxx xxxx xxxx xxxx  
Crit Moves: \*\*\*\* \*\*\*\*  
Delay/Veh: 9.7 9.7 0.0 0.0 0.0 10.0 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 9.7 9.7 0.0 0.0 0.0 10.0 13.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0  
LOS by Move: A A \* \* \* A B \* \* \* \* \* \*  
ApproachDel: 9.7 10.0 13.0 xxxxxxxx  
Delay Adj: 1.00 1.00 1.00  
ApprAdjDel: 9.7 10.0 13.0 xxxxxxxx  
LOS by Appr: A B \* \* \* \* \* \*  
AllWayAvg: 0.3 0.3 0.3 0.5 0.5 0.5 0.5 0.9 0.9 0.9 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

**Background Conditions  
Saturday Midday Peak Hour**

Sat Back

Wed May 16, 2007 17:05:14

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.442  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3  
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 0 10 0
Lanes:	0 0 0 0	0 0 1:0 0	0 0 3 0	0 0 3 0

Volume Module:

	0	0	0	253	0	6	0	1077	0	0	1239	0
Base Vol:	0	0	0	253	0	6	0	1077	0	0	1239	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	253	0	6	0	1077	0	0	1239	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	266	0	6	0	1134	0	0	1304	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	266	0	6	0	1134	0	0	1304	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.10	1.00	1.00	1.10	1.00
FinalVolume:	0	0	0	266	0	6	0	1247	0	0	1435	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.86	1.00	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.98	0.00	0.02	0.00	3.00	0.00	0.00	3.00	0.00
Final Sat.:	0	0	0	1587	0	38	0	5700	0	0	5700	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.17	0.00	0.22	0.00	0.00	0.25	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.38	0.00	0.38	0.00	0.57	0.00	0.00	0.57	0.00
Volume/Cap:	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.38	0.00	0.00	0.44	0.00
Uniform Del:	0.0	0.0	0.0	21.1	0.0	21.1	0.0	10.8	0.0	0.0	11.3	0.0
IncremntDel:	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.00	0.85	0.00	0.00	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	18.2	0.0	18.2	0.0	9.2	0.0	0.0	9.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	18.2	0.0	18.2	0.0	9.2	0.0	0.0	9.6	0.0
DesignQueue:	0	0	0	12	0	12	0	13	0	0	15	0

Note: Queue reported is the number of cars per lane.

Sat Back

Wed May 16, 2007 17:05:14

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.811  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 22.3  
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	2 0 1 0 0	0 0 2 0 1

Volume Module:

	10	437	1025	0	0	0	854	463	0	0	1304	250
Base Vol:	10	437	1025	0	0	0	854	463	0	0	1304	250
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	437	1025	0	0	0	854	463	0	0	1304	250
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.00	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	10	451	0	0	0	0	880	477	0	0	1344	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	451	0	0	0	0	880	477	0	0	1344	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.05	1.05	0.00	1.00	1.00	1.00	1.03	1.00	1.00	1.00	1.05	0.00
FinalVolume:	11	473	0	0	0	0	907	477	0	0	1412	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	1.96	1.00	0.00	0.00	0.00	2.00	1.00	0.00	0.00	2.00	1.00
Final Sat.:	85	3715	1900	0	0	0	3610	1900	0	0	3800	1900

Capacity Analysis Module:

Vol/Sat:	0.13	0.13	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.37	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.16	0.16	0.00	0.00	0.00	0.00	0.31	0.77	0.00	0.00	0.46	0.00
Volume/Cap:	0.81	0.81	0.00	0.00	0.00	0.00	0.81	0.33	0.00	0.00	0.81	0.00
Uniform Del:	37.1	37.1	0.0	0.0	0.0	0.0	29.0	3.3	0.0	0.0	21.3	0.0
IncremntDel:	5.8	5.8	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	2.1	0.0
Delay Adj:	0.85	0.85	0.00	0.00	0.00	0.00	0.85	0.85	0.00	0.00	0.85	0.00
Delay/Veh:	37.3	37.3	0.0	0.0	0.0	0.0	27.9	2.8	0.0	0.0	20.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.3	37.3	0.0	0.0	0.0	0.0	27.9	2.8	0.0	0.0	20.2	0.0
DesignQueue:	14	14	0	0	0	0	22	8	0	0	28	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 1994 HCM Operations Method (Base Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.704  
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4  
 Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Ignore Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	67	21	0	10	4	400	352	1074	30	13	1115	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	21	0	10	4	400	352	1074	30	13	1115	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	71	22	0	11	4	426	374	1143	0	14	1186	19
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	22	0	11	4	426	374	1143	0	14	1186	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	78	22	0	11	4	426	386	1200	0	14	1305	21

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.54	0.46	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.95	0.05
Final Sat.:	4631	841	0	1805	1900	1615	3610	3800	1900	1805	5609	91

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.00	0.01	0.00	0.26	0.11	0.32	0.00	0.01	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.02	0.33	0.00	0.07	0.37	0.37	0.15	0.47	0.00	0.01	0.33	0.33
Volume/Cap:	0.70	0.08	0.00	0.08	0.01	0.70	0.70	0.67	0.00	0.67	0.70	0.70
Uniform Del:	36.8	17.7	0.0	32.9	14.9	20.2	30.6	15.6	0.0	37.4	22.2	22.2
IncremntDel:	9.6	0.0	0.0	0.0	0.0	2.6	2.8	0.7	0.0	36.2	0.9	0.9
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	40.9	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.0	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.9	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.0	19.7	19.7
DesignQueue:	2	2	0	1	0	16	9	19	0	1	18	18

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 1994 HCM Operations Method (Base Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.460  
 Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
 Optimal Cycle: 32 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 0 0 0 0 1 0 0 0 0 1 1 0 2 1 0

Volume Module:

Base Vol:	0	0	0	71	0	147	173	915	0	0	1001	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	71	0	147	173	915	0	0	1001	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	76	0	158	186	984	0	0	1076	76
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	76	0	158	186	984	0	0	1076	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	76	0	158	186	1033	0	0	1184	84

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.80	0.20
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5269	374

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.27	0.00	0.00	0.22	0.22
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.21	0.00	0.21	0.22	0.71	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.46	0.46	0.38	0.00	0.00	0.46	0.46
Uniform Del:	0.0	0.0	0.0	29.5	0.0	31.3	30.6	5.2	0.0	0.0	15.4	15.4
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.0	0.0	0.1	0.1
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	25.1	0.0	27.3	26.6	4.5	0.0	0.0	13.2	13.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.1	0.0	27.3	26.6	4.5	0.0	0.0	13.2	13.2
DesignQueue:	0	0	0	4	0	8	10	11	0	0	15	15

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[117.8]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
Volume Module:  
Base Vol: 16 0 4 0 0 0 0 966 17 11 1028 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 16 0 4 0 0 0 0 966 17 11 1028 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 18 0 0 0 0 0 0 1062 19 12 1130 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 18 0 0 0 0 0 0 1062 19 12 1130 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
Capacity Module:  
Cnflct Vol: 2215 xxxx 1062 xxxx xxxx xxxx xxxx xxxx 1080 xxxx xxxx  
Potent Cap.: 49 xxxx 274 xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx  
Move Cap.: 48 xxxx 274 xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx  
Volume/Cap: 0.37 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
Level Of Service Module:  
2Way95thQ: 1.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
Control Del: 117.8 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx  
Shrd ConDel:xxxx xxxx  
Shared LOS: \*  
ApproachDel: 117.8 xxxxxx xxxxxx xxxxxx  
ApproachLOS: F \* \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 5.7 Worst Case Level Of Service: F[315.3]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
Volume Module:  
Base Vol: 0 0 0 0 30 0 183 135 758 0 0 961 70  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 30 0 183 135 758 0 0 961 70  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.00 0.87 0.87 0.87 0.87 0.87  
PHF Volume: 0 0 0 0 34 0 0 155 871 0 0 1105 80  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 0 34 0 0 155 871 0 0 1105 80  
Critical Gap Module:  
Critical Gp:xxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 2286 xxxx 1105 1185 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 44 xxxx 259 596 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 35 xxxx 259 596 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.98 xxxx 0.00 0.26 xxxx xxxx xxxx xxxx  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 3.6 xxxx xxxx 1.0 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxx xxxx xxxx 315.3 xxxx xxxx 13.1 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* \* B \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \*  
ApproachDel: xxxxxx 315.3 xxxxxx  
ApproachLOS: F \* \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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Level Of Service Computation Report  
1994 HCM Operations Method (Base Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.268  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.6  
Optimal Cycle: 19 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0

Volume Module:

Base Vol:	0	0	0	152	1	55	0	74	73	53	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	152	1	55	0	74	73	53	55	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
PHF Volume:	0	0	0	195	1	71	0	95	94	68	71	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	195	1	71	0	95	94	68	71	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	195	1	71	0	95	94	68	71	0

Saturation Flow Module:

Vol/Sat:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.45	0.45	0.45	0.00	0.45	0.45	0.45	0.45	0.00
Volume/Cap:	0.00	0.00	0.00	0.27	0.27	0.10	0.00	0.27	0.27	0.21	0.21	0.00
Uniform Del:	0.0	0.0	0.0	7.7	7.7	7.1	0.0	7.9	7.9	7.7	7.7	0.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	6.6	6.6	6.1	0.0	6.8	6.8	6.6	6.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	6.6	6.6	6.1	0.0	6.8	6.8	6.6	6.6	0.0
DesignQueue:	0	0	0	4	4	1	0	4	4	3	3	0

Note: Queue reported is the number of cars per lane.

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.462  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Base Vol:	22	101	0	0	0	103	245	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	101	0	0	0	103	245	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
PHF Volume:	30	138	0	0	0	141	336	0	0	0	0	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	138	0	0	0	141	336	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	30	138	0	0	0	141	336	0	0	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.18	0.82	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	124	569	0	0	0	776	727	0	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.24	0.24	xxxx	xxxx	xxxx	0.18	0.46	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	9.4	9.4	0.0	0.0	0.0	8.2	11.6	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.4	9.4	0.0	0.0	0.0	8.2	11.6	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	*	A	B	*	*	*	*	*
ApproachDel:	9.4					8.2		11.6				xxxxxx
Delay Adj:						1.00		1.00				xxxxxx
ApprAdjDel:	9.4					8.2		11.6				xxxxxx
LOS by Appr:						A	B					*
AllWayAvg:	0.3	0.3	0.3	0.2	0.2	0.2	0.8	0.8	0.8	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

## **Project Conditions AM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #1

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.673  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 40 Level Of Service: B

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

---

Volume Module:

	Base Vol.	0 0 0 441 0 2 0 1113 0 0 0 1700 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 441 0 2 0 1113 0 0 0 1700 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 441 0 2 0 1113 0 0 0 1700 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 469 0 2 0 1184 0 0 0 1809 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 469 0 2 0 1184 0 0 0 1809 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 469 0 2 0 1302 0 0 0 1989 0	

---

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.99 0.00 0.01 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1617 0 7 0 5700 0 0 5700 0

---

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.23 0.00 0.00 0.35 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.52 0.00 0.00 0.52 0.00
Volume/Cap:	0.00 0.00 0.00 0.67 0.00 0.67 0.00 0.44 0.00 0.00 0.67 0.00
Uniform Del:	0.0 0.0 0.0 20.8 0.0 20.8 0.0 13.7 0.0 0.0 16.2 0.0
IncremntDel:	0.0 0.0 0.0 1.8 0.0 1.8 0.0 0.1 0.0 0.0 0.4 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 19.4 0.0 19.4 0.0 11.7 0.0 0.0 14.2 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 19.4 0.0 19.4 0.0 11.7 0.0 0.0 14.2 0.0
DesignQueue:	0 0 0 19 0 19 0 15 0 0 23 0

---

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #2

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.754  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 61 Level Of Service: C

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	2 0 1 0 0	0 0 2 0 1

---

Volume Module:

	Base Vol: 23 201 860 0 0 0 608 780 0 0 1544 219
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	23 201 860 0 0 0 608 780 0 0 1544 219
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	23 201 860 0 0 0 608 780 0 0 1544 219
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume:	24 212 0 0 0 640 821 0 0 1625 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	24 212 0 0 0 640 821 0 0 1625 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
FinalVolume:	25 222 0 0 0 659 821 0 0 1707 0

---

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.99 0.99 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.21 1.79 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	386 3376 1900 0 0 0 3610 1900 0 0 3800 1900

---

Capacity Analysis Module:

	Vol/Sat: 0.07 0.07 0.00 0.00 0.00 0.00 0.18 0.43 0.00 0.00 0.45 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.05 0.09 0.00 0.00 0.00 0.00 0.24 0.84 0.00 0.00 0.60 0.00
Volume/Cap:	0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.52 0.00 0.00 0.75 0.00
Uniform Del:	40.7 40.7 0.0 0.0 0.0 0.0 32.0 2.1 0.0 0.0 13.5 0.0
IncremntDel:	6.5 6.5 0.0 0.0 0.0 0.0 2.6 0.2 0.0 0.0 1.0 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	41.0 41.0 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	41.0 41.0 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
DesignQueue:	8 8 0 0 0 0 17 10 0 0 26 0

---

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.682  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	41	3	1	9	29	347	319	1007	346	14	1382	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	3	1	9	29	347	319	1007	346	14	1382	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	3	1	9	29	347	319	1007	346	14	1382	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.00	0.97	0.97	0.97	0.97
PHF Volume:	42	3	1	9	30	358	329	1038	0	14	1425	5
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	3	1	9	30	358	329	1038	0	14	1425	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	46	3	1	9	30	358	339	1090	0	14	1567	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.79	0.16	0.05	1.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01	0.01
Final Sat.:	5089	287	96	1805	1900	1615	3610	3800	1900	1805	5679	21

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.01	0.02	0.22	0.09	0.29	0.00	0.01	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.23	0.23	0.11	0.32	0.32	0.14	0.53	0.00	0.01	0.40	0.40
Volume/Cap:	0.68	0.05	0.05	0.05	0.05	0.68	0.68	0.54	0.00	0.54	0.68	0.68
Uniform Del:	37.3	22.8	22.8	30.3	17.6	22.3	31.2	11.9	0.0	37.2	18.6	18.6
IncremntDel:	14.5	0.0	0.0	0.0	0.0	2.5	2.6	0.2	0.0	14.1	0.6	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	46.3	19.4	19.4	25.8	15.0	21.4	29.2	10.4	0.0	45.8	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.3	19.4	19.4	25.8	15.0	21.4	29.2	10.4	0.0	45.8	16.4	16.4
DesignQueue:	1	1	1	0	1	14	8	15	0	1	19	19

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.426  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 5.5  
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	0	74	0	44	74	981	0	0	1351	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	74	0	44	74	981	0	0	1351	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	74	0	44	74	981	0	0	1351	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	0	80	0	47	80	1055	0	0	1453	118
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	80	0	47	80	1055	0	0	1453	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	80	0	47	80	1108	0	0	1598	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.77	0.23	0.23
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5218	425	425

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.04	0.00	0.03	0.04	0.29	0.00	0.00	0.31	0.31
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.82	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.00	0.43	0.00	0.28	0.43	0.35	0.00	0.00	0.43	0.43
Uniform Del:	0.0	0.0	0.0	0.0	38.3	0.0	37.8	38.3	2.0	0.0	0.0	5.2	5.2
IncremntDel:	0.0	0.0	0.0	0.0	1.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
DesignQueue:	0	0	0	0	5	0	3	5	7	0	0	12	12

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[174.3]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 5 0 4 0 0 0 0 1101 12 13 1453 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 5 0 4 0 0 0 0 1101 12 13 1453 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 5 0 4 0 0 0 0 1101 12 13 1453 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98  
PHF Volume: 5 0 0 0 0 0 0 1123 12 13 1483 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 5 0 0 0 0 0 0 1123 12 13 1483 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: 2633 xxxx 1123 xxxx xxxx xxxx xxxx xxxx xxxx 1136 xxxx xxxx  
Potent Cap.: 26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 623 xxxx xxxx  
Move Cap.: 26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 623 xxxx xxxx  
Volume/Cap: 0.20 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 0.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
Control Del: 174.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.9 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel: xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 174.3 xxxxxx xxxx xxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[329.2]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 29 0 196 70 979 0 0 1251 359  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 29 0 196 70 979 0 0 1251 359  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 29 0 196 70 979 0 0 1251 359  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98  
PHF Volume: 0 0 0 30 0 0 71 999 0 0 1277 366  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 30 0 0 71 999 0 0 1277 366  
Critical Gap Module:  
Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 2418 xxxx 1277 1643 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 36 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 31 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.95 xxxx 0.00 0.18 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 3.2 xxxx xxxx 0.6 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxxx xxxx xxxx 329.2 xxxx xxxx 16.0 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* C \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel:xxxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxxxx 329.2 xxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.297  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.8  
Optimal Cycle: 20 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0	
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 0 0 0	

Volume Module:

	Base Vol:	256	45	0	27	6	82	27	0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	
Initial Bse:	0 0 0	0 256	2 45	0	27	6	82	27	0
Added Vol:	0 0 0	0 0 0	0 1	0 0	1	0	1	0	0
PasserByVol:	0 0 0	0 0 0	0 0	0 0	0	0	0	0	0
Initial Fut:	0 0 0	0 256	2 46	0	27	7	82	28	0
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85
PHF Volume:	0 0 0	301 2	54 0	32 0	8 96	33 0	0 0 0	0 0 0	0 0 0
Reducet Vol:	0 0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	0 0 0	301 2	54 0	32 0	8 96	33 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	0 0 0	301 2	54 0	32 0	8 96	33 0	0 0 0	0 0 0	0 0 0

Saturation Flow Module:

	Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	1.00 0.85	0.85 0.85	1.00 0.87	0.87 0.86	0.86 0.86	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.00 0.00	0.00 0.99	0.99 0.01	1.00 0.00	0.79 0.21	0.75 0.25	0.25 0.00	0.00 0.00	0.00 0.00
Final Sat.:	0 0 0	1602 13	1615 0	1313 340	1218 416	416 0	0 0 0	0 0 0	0 0 0

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00	0.00 0.19	0.19 0.19	0.03 0.00	0.02 0.02	0.02 0.08	0.08 0.08	0.00 0.00
Crit Moves:		****		****		****		****	
Green/Cycle:	0.00 0.00	0.00 0.63	0.63 0.63	0.63 0.00	0.27 0.27	0.27 0.27	0.27 0.27	0.27 0.00	
Volume/Cap:	0.00 0.00	0.00 0.30	0.30 0.30	0.05 0.05	0.00 0.09	0.09 0.30	0.30 0.30	0.00 0.00	
Uniform Del:	0.0 0.0	0.0 3.8	3.8 3.8	3.2 0.0	12.6 12.6	12.6 13.3	13.3 0.0	0.0 0.0	
IncremntDel:	0.0 0.0	0.0 0.1	0.1 0.0	0.0 0.0	0.0 0.0	0.0 0.1	0.1 0.0	0.0 0.0	
Delay Adj:	0.0 0.0	0.0 0.0	0.85 0.85	0.85 0.85	0.00 0.85	0.85 0.85	0.85 0.85	0.00 0.00	
Delay/Veh:	0.0 0.0	0.0 3.3	3.3 3.3	2.7 0.0	10.7 10.7	10.7 11.4	11.4 0.0	0.0 0.0	
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	
AdjDel/Veh:	0.0 0.0	0.0 3.3	3.3 3.3	2.7 0.0	10.7 10.7	10.7 11.4	11.4 11.4	0.0 0.0	
DesignQueue:	0 0 0	0 4	4 4	1 0	1 0	1 3	3 0	0 0 0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.511  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0	

Volume Module:

	Base Vol:	31 307	0 0 0	75 285	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	31 307	0 0 0	75 285	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Added Vol:	1 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	32 307	0 0 0	75 285	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92
PHF Volume:	35 334	0 0 0	82 310	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Reducet Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	35 334	0 0 0	82 310	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	35 334	0 0 0	82 310	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

Saturation Flow Module:

	Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.09 0.91	0.00 0.00	0.00 0.00	1.00 1.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Final Sat.:	68 653	0 0 0	732 671	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

Capacity Analysis Module:

	Vol/Sat:	0.51 0.51	xxxx xxxx xxxx xxxx	0.11 0.46	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx		
Crit Moves:		****		****		****		
Delay/Veh:	12.5 12.5	0.0 0.0	0.0 0.0	8.1 12.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
Delay Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	12.5 12.5	0.0 0.0	0.0 0.0	8.1 12.1	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
LOS by Move:	B B	*	*	A B	*	*	*	*
ApproachDel:	12.5		8.1		12.1		xxxxxx	
Delay Adj:	1.00		1.00		1.00		xxxxxx	
ApprAdjDel:	12.5		8.1		12.1		xxxxxx	
LOS by Appr:	B		A		B		*	
AllWayAvgQ:	0.9 0.9	0.9 0.9	0.1 0.1	0.1 0.1	0.7 0.7	0.7 0.7	0.0 0.0	0.0 0.0

Note: Queue reported is the number of cars per lane.

## **Project Conditions Midday Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #1

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.401  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.3  
Optimal Cycle: 26 Level Of Service: B

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

---

Volume Module:

	Base Vol.	0 0 0 128 0 9 0 1340 0 0 0 1132 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 128 0 9 0 1340 0 0 0 1132 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 1 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 128 0 9 0 1340 0 0 0 1133 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90	
PHF Volume:	0 0 0 142 0 10 0 1489 0 0 0 1259 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 142 0 10 0 1489 0 0 0 1259 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 142 0 10 0 1638 0 0 0 1385 0	

---

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.85 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.93 0.00 0.07 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1517 0 107 0 5700 0 0 5700 0

---

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.09 0.00 0.09 0.00 0.29 0.00 0.00 0.24 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.00 0.00 0.00 0.23 0.00 0.23 0.00 0.72 0.00 0.00 0.72 0.00
Volume/Cap:	0.00 0.00 0.00 0.40 0.00 0.40 0.00 0.40 0.00 0.00 0.34 0.00
Uniform Del:	0.0 0.0 0.0 29.5 0.0 29.5 0.0 5.2 0.0 0.0 4.8 0.0
IncremntDel:	0.0 0.0 0.0 0.4 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0
DesignQueue:	0 0 0 8 0 8 0 11 0 0 9 0

---

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #2

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.751  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6  
Optimal Cycle: 61 Level Of Service: C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

---

Volume Module:

	Base Vol: 1 395 881 0 0 0 912 525 0 0 1026 324
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	1 395 881 0 0 0 912 525 0 0 1026 324
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 1 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	1 395 881 0 0 0 912 525 0 0 1027 324
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.94 0.94 0.00 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00
PHF Volume:	1 420 0 0 0 970 559 0 0 1093 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	1 420 0 0 0 970 559 0 0 1093 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
FinalVolume:	1 441 0 0 0 999 559 0 0 1147 0

---

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00
Lanes:	0.01 1.99 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	10 3790 1900 0 0 0 3610 1900 0 0 3800 1900

---

Capacity Analysis Module:

	Vol/Sat: 0.12 0.12 0.00 0.00 0.00 0.00 0.28 0.29 0.00 0.00 0.30 0.00
Crit Moves:	**** * **** * ****
Green/Cycle:	0.15 0.15 0.00 0.00 0.00 0.00 0.37 0.77 0.00 0.00 0.40 0.00
Volume/Cap:	0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.38 0.00 0.00 0.75 0.00
Uniform Del:	36.9 36.9 0.0 0.0 0.0 0.0 25.2 3.4 0.0 0.0 23.4 0.0
IncremntDel:	3.7 3.7 0.0 0.0 0.0 0.0 1.7 0.1 0.0 0.0 1.5 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	35.1 35.1 0.0 0.0 0.0 0.0 23.1 3.0 0.0 0.0 21.4 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	35.1 35.1 0.0 0.0 0.0 0.0 23.1 3.0 0.0 0.0 21.4 0.0
DesignQueue:	13 13 0 0 0 0 23 9 0 0 25 0

---

Note: Queue reported is the number of cars per lane.



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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 7.0 Worst Case Level Of Service: F[218.0]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 63 0 14 0 0 0 0 1025 12 5 867 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 63 0 14 0 0 0 0 1025 12 5 867 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 1 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 63 0 14 0 0 0 0 1025 12 5 868 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 66 0 0 0 0 0 0 1079 13 5 914 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 66 0 0 0 0 0 0 1079 13 5 914 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: 2003 xxxx 1079 xxxx xxxx xxxx xxxx xxxx xxxx 1092 xxxx xxxx  
Potent Cap.: 66 xxxx 268 xxxx xxxx xxxx xxxx xxxx 647 xxxx xxxx  
Move Cap.: 66 xxxx 268 xxxx xxxx xxxx xxxx xxxx 647 xxxx xxxx  
Volume/Cap: 1.01 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.01 xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 5.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx  
Control Del: 218.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxxx xxxx  
Shrd ConDel:xxxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 218.0 xxxxxx xxxx xxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 4.1 Worst Case Level Of Service: F[157.6]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 0 37 0 116 164 825 0 0 684 143  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 37 0 116 164 825 0 0 684 143  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 1 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 0 37 0 116 164 825 0 0 685 143  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93  
PHF Volume: 0 0 0 0 40 0 0 0 176 887 0 0 737 154  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 0 40 0 0 0 176 887 0 0 737 154  
Critical Gap Module:  
Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 1976 xxxx 737 890 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 69 xxxx 422 770 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 57 xxxx 422 770 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.70 xxxx 0.00 0.23 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 2.9 xxxx xxxx 0.9 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxxx xxxx xxxx 157.6 xxxx xxxx 11.1 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* \* F \* \* \* B \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxxx xxxx  
Shrd ConDel:xxxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxxxx 157.6 xxxxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #7  
\*\*\*\*\*  
Cycle (sec): 60 Critical Vol./Cap.(X): 0.391  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.8  
Optimal Cycle: 22 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 220 1 86 0 171 115 85 61 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 220 1 86 0 171 115 85 61 0  
Added Vol: 0 0 0 0 0 2 0 6 17 0 5 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 220 1 88 0 177 132 85 66 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
PHF Volume: 0 0 0 234 1 94 0 188 140 90 70 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 0 0 0 234 1 94 0 188 140 90 70 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 0 0 0 234 1 94 0 188 140 90 70 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 1.00 0.84 0.84 0.61 0.61 1.00  
Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.57 0.43 0.56 0.44 0.00  
Final Sat.: 0 0 0 1608 7 1615 0 914 682 652 507 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.00 0.00 0.15 0.15 0.06 0.00 0.21 0.21 0.14 0.14 0.00  
Crit Moves: \*\*\*\* \*\*\*\*  
Green/Cycle: 0.00 0.00 0.00 0.37 0.37 0.37 0.00 0.53 0.53 0.53 0.53 0.00  
Volume/Cap: 0.00 0.00 0.00 0.39 0.39 0.16 0.00 0.39 0.39 0.26 0.26 0.00  
Uniform Del: 0.0 0.0 0.0 10.5 10.5 9.5 0.0 6.4 6.4 5.9 5.9 0.0  
IncremntDel: 0.0 0.0 0.0 0.2 0.2 0.0 0.0 0.2 0.2 0.1 0.1 0.0  
Delay Adj: 0.0 0.0 0.0 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00  
Delay/Veh: 0.0 0.0 0.0 9.1 9.1 8.1 0.0 5.6 5.6 5.1 5.1 0.0  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 0.0 0.0 0.0 9.1 9.1 8.1 0.0 5.6 5.6 5.1 5.1 0.0  
DesignQueue: 0 0 0 5 5 2 0 5 5 3 3 0  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #8  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.586  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.1  
Optimal Cycle: 0 Level Of Service: B  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 65 79 0 0 0 88 397 0 0 0 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 65 79 0 0 0 88 397 0 0 0 0 0 0  
Added Vol: 5 0 0 0 0 0 0 0 0 6 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 70 79 0 0 0 88 403 0 0 0 0 0 0  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92  
PHF Volume: 76 86 0 0 0 96 438 0 0 0 0 0 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 76 86 0 0 0 96 438 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 76 86 0 0 0 96 438 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Saturation Flow Module:  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.47 0.53 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00  
Final Sat.: 307 346 0 0 0 722 748 0 0 0 0 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Analysis Module:  
Vol/Sat: 0.25 0.25 xxxx xxxx xxxx 0.13 0.59 xxxx xxxx xxxx xxxx  
Crit Moves: \*\*\*\* \*\*\*\*  
Delay/Veh: 9.7 9.7 0.0 0.0 0.0 8.2 13.9 0.0 0.0 0.0 0.0 0.0 0.0  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 9.7 9.7 0.0 0.0 0.0 8.2 13.9 0.0 0.0 0.0 0.0 0.0 0.0  
LOS by Move: A A \* \* \* A B \* \* \* \* \* \*  
ApproachDel: 9.7 8.2 13.9 xxxxxxxx  
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
ApprAdjDel: 9.7 8.2 13.9 xxxxxxxx  
LOS by Appr: A A B \* \* \* \* \* \* \* \*  
AllWayAvg: 0.3 0.3 0.3 0.1 0.1 0.1 1.3 1.3 1.3 0.0 0.0 0.0 0.0  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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**Project Conditions**  
**PM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.587  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2  
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 252 0 8 0 1096 0 0 0 1889 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 252 0 8 0 1096 0 0 0 1889 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 252 0 8 0 1096 0 0 0 1889 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 268 0 9 0 1166 0 0 0 2010 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 268 0 9 0 1166 0 0 0 2010 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00	
FinalVolume:	0 0 0 268 0 9 0 1283 0 0 0 2211 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.97 0.00 0.03 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1575 0 50 0 5700 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.23 0.00 0.00 0.39 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.66 0.00 0.00 0.66 0.00
Volume/Cap:	0.00 0.00 0.00 0.59 0.00 0.59 0.00 0.34 0.00 0.00 0.59 0.00
Uniform Del:	0.0 0.0 0.0 27.7 0.0 27.7 0.0 6.8 0.0 0.0 8.6 0.0
IncremntDel:	0.0 0.0 0.0 1.4 0.0 1.4 0.0 0.0 0.0 0.0 0.2 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
DesignQueue:	0 0 0 14 0 14 0 10 0 0 19 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 1.081  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 61.5  
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol: 6 739 974 0 0 0 896 592 0 0 1660 400
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	6 739 974 0 0 0 896 592 0 0 1660 400
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	6 739 974 0 0 0 896 592 0 0 1660 400
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume:	7 803 0 0 0 974 643 0 0 1804 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	7 803 0 0 0 974 643 0 0 1804 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
FinalVolume:	7 843 0 0 0 1003 643 0 0 1895 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.02 1.98 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	31 3769 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.22 0.22 0.00 0.00 0.00 0.00 0.28 0.34 0.00 0.00 0.50 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.21 0.21 0.00 0.00 0.00 0.00 0.26 0.72 0.00 0.00 0.46 0.00
Volume/Cap:	1.08 1.08 0.00 0.00 0.00 0.00 1.08 0.47 0.00 0.00 1.08 0.00
Uniform Del:	36.2 36.2 0.0 0.0 0.0 0.0 33.9 5.5 0.0 0.0 24.6 0.0
IncremntDel:	50.7 50.7 0.0 0.0 0.0 0.0 48.6 0.2 0.0 0.0 42.4 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	81.4 81.4 0.0 0.0 0.0 0.0 77.4 4.9 0.0 0.0 63.3 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	81.4 81.4 0.0 0.0 0.0 0.0 77.4 4.9 0.0 0.0 63.3 0.0
DesignQueue:	24 24 0 0 0 0 27 13 0 0 39 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #3

---

Cycle (sec): 100 Critical Vol./Cap.(X): 1.011  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 40.8  
Optimal Cycle: 180 Level Of Service: E

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Ignore	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	2 0 1! 0	1 0 1 0 1	2 0 2 0 1	1 0 2 1 0

---

Volume Module:

Base Vol:	312	4	0	45	9	594	340	1160	3	5	1486	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	312	4	0	45	9	594	340	1160	3	5	1486	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	312	4	0	45	9	594	340	1160	3	5	1486	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	339	4	0	49	10	646	370	1261	0	5	1615	17
Reducut Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	339	4	0	49	10	646	370	1261	0	5	1615	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	373	4	0	49	10	646	381	1324	0	5	1777	19

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.97	0.03	0.00	1.00	1.00	2.00	2.00	1.00	1.00	2.97	0.03	
Final Sat.:	5354	61	0	1805	1900	1615	3610	3800	1900	1805	5639	61

---

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.00	0.03	0.01	0.40	0.11	0.35	0.00	0.00	0.32	0.32
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.07	0.34	0.00	0.13	0.40	0.40	0.10	0.41	0.00	0.00	0.31	0.31
Volume/Cap:	1.01	0.21	0.00	0.21	0.01	1.01	1.01	0.85	0.00	0.85	1.01	1.01
Uniform Del:	35.4	18.0	0.0	29.7	14.0	23.0	34.0	20.1	0.0	37.8	26.2	26.2
IncremntDel:	38.9	0.0	0.0	0.1	0.0	30.2	38.7	3.2	0.0	161.1	19.0	19.0
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.0	15.3	0.0	25.3	11.9	49.8	67.7	20.3	0.0	193.2	41.3	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.0	15.3	0.0	25.3	11.9	49.8	67.7	20.3	0.0	193.2	41.3	41.3
DesignQueue:	7	5	0	2	0	24	10	24	0	0	25	25

---

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #4

---

Cycle (sec): 120 Critical Vol./Cap.(X): 0.727  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8  
Optimal Cycle: 57 Level Of Service: C

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0 0	1 0 0 0	0 1 0 0	0 0 2 1 0

---

Volume Module:

Base Vol:	0	0	0	134	0	471	110	1255	0	0	1110	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	134	0	471	110	1255	0	0	1110	188
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	134	0	471	110	1255	0	0	1110	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	141	0	496	116	1321	0	0	1168	198
Reducut Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	141	0	496	116	1321	0	0	1168	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	141	0	496	116	1387	0	0	1285	218

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.57	0.43
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	4777	809

---

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.31	0.06	0.37	0.00	0.00	0.27	0.27
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.42	0.00	0.42	0.10	0.50	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.73	0.66	0.73	0.00	0.00	0.66	0.66
Uniform Del:	0.0	0.0	0.0	16.5	0.0	21.9	39.8	17.8	0.0	0.0	22.0	22.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	2.7	6.1	1.0	0.0	0.0	0.5	0.5
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
DesignQueue:	0	0	0	6	0	20	7	25	0	0	21	21

---

Note: Queue reported is the number of cars per lane.

-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5  
 \*\*\*\*\*  
 Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[447.1]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Ignore Include Include Include  
 Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
 |-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 11 0 8 0 0 0 0 1460 5 7 1211 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 11 0 8 0 0 0 0 1460 5 7 1211 0  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 11 0 8 0 0 0 0 1460 5 7 1211 0  
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
 PHF Volume: 12 0 0 0 0 0 0 1604 5 8 1331 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 12 0 0 0 0 0 0 1604 5 8 1331 0  
 Critical Gap Module:  
 Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
 FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
 |-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: 2951 xxxx 1604 xxxx xxxx xxxx xxxx xxxx xxxx 1610 xxxx xxxx  
 Potent Cap.: 16 xxxx 131 xxxx xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx  
 Move Cap.: 16 xxxx 131 xxxx xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx  
 Volume/Cap: 0.74 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
 |-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: 1.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
 Control Del: 447.1 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 13.9 xxxx xxxx  
 LOS by Move: F \* \* \* \* \* \* \* \* B \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx  
 Shrd ConDel:xxxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: 447.1 xxxxxx xxxx xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #6  
 \*\*\*\*\*  
 Average Delay (sec/veh): 42.2 Worst Case Level Of Service: F[3013.0]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Ignore Include Include  
 Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
 |-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 0 0 0 40 0 105 193 1368 0 0 1021 328  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 0 0 40 0 105 193 1368 0 0 1021 328  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 0 0 40 0 105 193 1368 0 0 1021 328  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89  
 PHF Volume: 0 0 0 45 0 0 217 1537 0 0 1147 369  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 0 0 45 0 0 217 1537 0 0 1147 369  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
 FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 3118 xxxx 1147 1516 xxxx xxxx xxxx xxxx xxxx  
 Potent Cap.: xxxx xxxx xxxx 13 xxxx 244 447 xxxx xxxx xxxx xxxx xxxx  
 Move Cap.: xxxx xxxx xxxx 8 xxxx 244 447 xxxx xxxx xxxx xxxx xxxx  
 Volume/Cap: xxxx xxxx xxxx 5.67 xxxx 0.00 0.49 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx 7.0 xxxx xxxx 2.6 xxxx xxxx xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx 3013 xxxx xxxx 20.4 xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: \* \* \* F \* \* C \* \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: xxxxxx 3013.0 xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

pm pro]

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## Level Of Service Computation Report

1994 HCM Operations Method (Future Volume Alternative)

Note: Queue reported is the number of cars per lane.

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## Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Note: Queue reported is the number of cars per lane

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**Project Conditions**  
**Saturday Midday Peak Hour**

sat proj

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.442  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.3  
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 253 0 6 0 1077 0 0 0 1239 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 253 0 6 0 1077 0 0 0 1239 0	
Added Vol:	0 0 0 0 0 0 0 0 0 1 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 253 0 6 0 1077 0 0 0 1240 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	
PHF Volume:	0 0 0 266 0 6 0 1134 0 0 0 1305 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 266 0 6 0 1134 0 0 0 1305 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00	
FinalVolume:	0 0 0 266 0 6 0 1247 0 0 0 1436 0	

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.98 0.00 0.02 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1587 0 38 0 5700 0 0 5700 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.22 0.00 0.00 0.25 0.00
Crit Moves:	**** * ****
Green/Cycle:	0.00 0.00 0.00 0.38 0.00 0.38 0.00 0.57 0.00 0.00 0.57 0.00
Volume/Cap:	0.00 0.00 0.00 0.44 0.00 0.44 0.00 0.38 0.00 0.00 0.44 0.00
Uniform Del:	0.0 0.0 0.0 21.1 0.0 21.1 0.0 10.8 0.0 0.0 11.3 0.0
IncremntDel:	0.0 0.0 0.0 0.3 0.0 0.3 0.0 0.0 0.0 0.0 0.1 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 18.3 0.0 18.3 0.0 9.2 0.0 0.0 9.6 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 18.3 0.0 18.3 0.0 9.2 0.0 0.0 9.6 0.0
DesignQueue:	0 0 0 12 0 12 0 13 0 0 15 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.811  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4  
Optimal Cycle: 74 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol.	10 437 1025 0 0 0 854 463 0 0 1304 250
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	10 437 1025 0 0 0 854 463 0 0 1304 250	
Added Vol:	0 0 0 1 0 0 0 0 0 0 0 0 1 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	10 437 1026 0 0 0 854 463 0 0 1305 250	
User Adj:	1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.97 0.97 0.97 0.00 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97	
PHF Volume:	10 451 0 0 0 880 477 0 0 1345 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	10 451 0 0 0 880 477 0 0 1345 0	
PCE Adj:	1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00	
FinalVolume:	11 473 0 0 0 907 477 0 0 1413 0	

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.04 1.96 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	85 3715 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

Vol/Sat:	0.13 0.13 0.00 0.00 0.00 0.00 0.25 0.25 0.00 0.00 0.37 0.00
Crit Moves:	**** * ****
Green/Cycle:	0.16 0.16 0.00 0.00 0.00 0.00 0.31 0.77 0.00 0.00 0.46 0.00
Volume/Cap:	0.81 0.81 0.00 0.00 0.00 0.00 0.81 0.33 0.00 0.00 0.81 0.00
Uniform Del:	37.1 37.1 0.0 0.0 0.0 0.0 29.0 3.3 0.0 0.0 21.3 0.0
IncremntDel:	5.8 5.8 0.0 0.0 0.0 0.0 3.3 0.0 0.0 0.0 2.1 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	37.3 37.3 0.0 0.0 0.0 0.0 27.9 2.8 0.0 0.0 20.2 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	37.3 37.3 0.0 0.0 0.0 0.0 27.9 2.8 0.0 0.0 20.2 0.0
DesignQueue:	14 14 0 0 0 0 22 8 0 0 28 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705  
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4  
 Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Ignore Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	67	21	0	10	4	400	352	1074	30	13	1115	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	21	0	10	4	400	352	1074	30	13	1115	18
Added Vol:	0	0	0	0	0	0	0	1	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	21	0	10	4	400	352	1075	30	13	1116	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.00	0.94	0.94	0.94
PHF Volume:	71	22	0	11	4	426	374	1144	0	14	1187	19
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	22	0	11	4	426	374	1144	0	14	1187	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	78	22	0	11	4	426	386	1201	0	14	1306	21

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.54	0.46	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.95	0.05
Final Sat.:	4631	841	0	1805	1900	1615	3610	3800	1900	1805	5610	90

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.00	0.01	0.00	0.26	0.11	0.32	0.00	0.01	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.02	0.33	0.00	0.07	0.37	0.37	0.15	0.47	0.00	0.01	0.33	0.33
Volume/Cap:	0.70	0.08	0.00	0.08	0.01	0.70	0.70	0.67	0.00	0.67	0.70	0.70
Uniform Del:	36.8	17.7	0.0	32.9	14.9	20.2	30.6	15.6	0.0	37.4	22.2	22.2
IncremntDel:	9.6	0.0	0.0	0.0	0.0	2.6	2.8	0.7	0.0	36.3	0.9	0.9
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	40.9	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.1	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.9	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.1	19.7	19.7
DesignQueue:	2	2	0	1	0	16	9	19	0	1	18	18

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.460  
 Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
 Optimal Cycle: 32 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	71	0	147	173	915	0	0	1001	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	71	0	147	173	915	0	0	1001	71
Added Vol:	0	0	0	0	0	0	0	1	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	71	0	147	173	916	0	0	1002	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	76	0	158	186	985	0	0	1077	76
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	76	0	158	186	985	0	0	1077	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	76	0	158	186	1034	0	0	1185	84

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	1.00	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.80	0.20
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5270	373

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.27	0.00	0.00	0.22	0.22
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.21	0.00	0.21	0.22	0.71	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.46	0.46	0.38	0.00	0.00	0.46	0.46
Uniform Del:	0.0	0.0	0.0	29.5	0.0	31.3	30.6	5.2	0.0	0.0	15.4	15.4
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.0	0.1	0.1	0.1
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	25.1	0.0	27.4	26.6	4.5	0.0	0.0	13.2	13.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.1	0.0	27.4	26.6	4.5	0.0	0.0	13.2	13.2
DesignQueue:	0	0	0	4	0	8	10	11	0	0	15	15

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[118.3]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 16 0 4 0 0 0 0 966 17 11 1028 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 16 0 4 0 0 0 0 966 17 11 1028 0  
Added Vol: 0 0 0 0 0 0 0 1 0 0 0 1 0 0 0 1 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 16 0 4 0 0 0 0 967 17 11 1029 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 18 0 0 0 0 0 0 1063 19 12 1131 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 18 0 0 0 0 0 0 1063 19 12 1131 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: 2218 xxxx 1063 xxxx xxxx xxxx xxxx xxxx xxxx 1081 xxxx xxxx  
Potent Cap.: 49 xxxx 274 xxxx xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx  
Move Cap.: 48 xxxx 274 xxxx xxxx xxxx xxxx xxxx xxxx 653 xxxx xxxx  
Volume/Cap: 0.37 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 1.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
Control Del: 118.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel: xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 118.3 xxxxxx xxxx xxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 5.8 Worst Case Level Of Service: F[317.2]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 0 30 0 183 135 758 0 0 961 70  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 0 30 0 183 135 758 0 0 961 70  
Added Vol: 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 0 30 0 183 135 759 0 0 962 70  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87  
PHF Volume: 0 0 0 0 34 0 0 155 872 0 0 1106 80  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 0 34 0 0 155 872 0 0 1106 80  
Critical Gap Module:  
Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 2289 xxxx 1106 1186 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 44 xxxx 258 596 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 35 xxxx 258 596 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.98 xxxx 0.00 0.26 xxxx xxxx xxxx xxxx xxxx  
|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 3.6 xxxx xxxx 1.0 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxxx xxxx xxxx 317.2 xxxx xxxx 13.2 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* B \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue: xxxx  
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxxxx 317.2 xxxx xxxx  
ApproachLOS: F \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.282  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.6  
Optimal Cycle: 19 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 0	0 0 0 1	0 0 0 0

Volume Module:

	0	0	0	152	1	55	0	74	73	53	55	0
Base Vol:	0	0	0	152	1	55	0	74	73	53	55	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	152	1	55	0	74	73	53	55	0
Added Vol:	0	0	0	0	0	3	0	4	12	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	152	1	58	0	78	85	53	62	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
PHF Volume:	0	0	0	195	1	74	0	100	109	68	79	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	195	1	74	0	100	109	68	79	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	195	1	74	0	100	109	68	79	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.85	0.85	1.00	0.83	0.83	0.76	0.76	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.48	0.52	0.46	0.54	0.00
Final Sat.:	0	0	0	1604	11	1615	0	755	822	665	779	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.12	0.12	0.05	0.00	0.13	0.13	0.10	0.10	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.43	0.43	0.43	0.00	0.47	0.47	0.47	0.47	0.00
Volume/Cap:	0.00	0.00	0.00	0.28	0.28	0.11	0.00	0.28	0.28	0.22	0.22	0.00
Uniform Del:	0.0	0.0	0.0	8.4	8.4	7.8	0.0	7.4	7.4	7.1	7.1	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	7.2	7.2	6.6	0.0	6.3	6.3	6.1	6.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	7.2	7.2	6.6	0.0	6.3	6.3	6.1	6.1	0.0
DesignQueue:	0	0	0	4	4	1	0	4	4	3	3	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.471  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.4  
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0

Volume Module:

	22	101	0	0	0	103	245	0	0	0	0	0
Base Vol:	22	101	0	0	0	103	245	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	22	101	0	0	0	103	245	0	0	0	0	0
Added Vol:	7	0	0	0	0	0	0	4	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	101	0	0	0	103	249	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
PHF Volume:	40	138	0	0	0	141	341	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	138	0	0	0	141	341	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	138	0	0	0	141	341	0	0	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.22	0.78	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	154	536	0	0	0	770	724	0	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.26	0.26	xxxx	xxxx	xxxx	xxxx	0.18	0.47	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	9.5	9.5	0.0	0.0	0.0	8.3	11.8	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.5	9.5	0.0	0.0	0.0	8.3	11.8	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	*	A	B	*	*	*	*	*
ApproachDel:	9.5	9.5	8.3	8.3	8.3	11.8	11.8	11.8	11.8	11.8	11.8	11.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ApprAdjDel:	9.5	9.5	8.3	8.3	8.3	11.8	11.8	11.8	11.8	11.8	11.8	11.8
LOS by Appr:	A	A	B	B	B	*	*	*	*	*	*	*
AllWayAvgQ:	0.3	0.3	0.3	0.2	0.2	0.2	0.8	0.8	0.8	0.8	0.8	0.8

Note: Queue reported is the number of cars per lane.

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**Cumulative Conditions  
AM Peak Hour**

AM Cumulative NP

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.673  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10	0 10
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 441	0 2	0 1113	0 0 1701	0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Initial Bse:	0 0 0 441	0 2	0 1113	0 0 1701	0	
Added Vol:	0 0 0 0	0 0	0 0	0 0	0 0	
PasserByVol:	0 0 0 0	0 0	0 0	0 0	0 0	
Initial Fut:	0 0 0 441	0 2	0 1113	0 0 1701	0	
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
PHF Adj:	0.94 0.94	0.94 0.94	0.94 0.94	0.94 0.94	0.94 0.94	0.94
PHF Volume:	0 0 0 469	0 2	0 1184	0 0 1810	0	
Reducet Vol:	0 0 0 0	0 0	0 0	0 0	0 0	
Reduced Vol:	0 0 0 469	0 2	0 1184	0 0 1810	0	
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
FinalVolume:	0 0 0 469	0 2	0 1302	0 0 1991	0	

Saturation Flow Module:

	Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	1.00 1.00	0.86 1.00	0.86 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.00 0.00	0.00 0.99	0.00 0.01	0.00 3.00	0.00 0.00	0.00 3.00	0.00 0.00	0.00 0.00	0.00 0.00
Final Sat.:	0 0 0	1617 0	7 0	5700 0	0 0	5700 0	0 0	5700 0	0 0

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00	0.29 0.00	0.29 0.00	0.23 0.00	0.00 0.00	0.35 0.00
Crit Moves:		****	****	****	****	****	****
Green/Cycle:	0.00 0.00	0.00 0.43	0.00 0.43	0.00 0.52	0.00 0.00	0.52 0.00	
Volume/Cap:	0.00 0.00	0.00 0.67	0.00 0.67	0.00 0.44	0.00 0.00	0.67 0.00	
Uniform Del:	0.0 0.0	0.0 20.8	0.0 20.8	0.0 13.7	0.0 0.0	16.2 0.0	
IncremntDel:	0.0 0.0	0.0 1.8	0.0 1.8	0.0 0.1	0.0 0.0	0.4 0.0	
Delay Adj:	0.00 0.00	0.00 0.85	0.00 0.85	0.00 0.85	0.00 0.00	0.85 0.00	
Delay/Veh:	0.0 0.0	0.0 19.5	0.0 19.5	0.0 11.7	0.0 0.0	14.2 0.0	
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
AdjDel/Veh:	0.0 0.0	0.0 19.5	0.0 19.5	0.0 11.7	0.0 0.0	14.2 0.0	
DesignQueue:	0 0 0	19 0	19 0	15 0	0 0	23 0	

Note: Queue reported is the number of cars per lane.

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AM Cumulative NP

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.754  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0	0 0 0 1	0 0 1 0	0 0 2 0

Volume Module:

	Base Vol.	23 201	861 0 0 0	608 780 0 0	1545 219 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	23 201	861 0 0 0	608 780 0 0	1545 219 0	
Added Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	23 201	861 0 0 0	608 780 0 0	1545 219 0	
User Adj:	1.00 1.00	0.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.95 0.95	0.00 0.95	0.95 0.95	0.95 0.95	0.95 0.95
PHF Volume:	24 212 0	0 0 0 0	640 821 0 0	1626 0 0	
Reducet Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	24 212 0	0 0 0 0	640 821 0 0	1626 0 0	
PCE Adj:	1.00 1.00	0.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.05 1.05	0.00 1.00	1.00 1.00	1.00 1.03	1.00 1.00
FinalVolume:	25 222 0	0 0 0 0	659 821 0 0	1708 0 0	

Saturation Flow Module:

	Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900	1900 1900
Adjustment:	0.99 0.99	1.00 1.00	1.00 1.00	1.00 1.00	0.95 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.21 1.79	1.00 0.00	0.00 0.00	0.00 0.00	2.00 1.00	0.00 0.00	0.00 2.00	1.00 0.00	0.3800 1900
Final Sat.:	386 3376	1900 0 0 0	3610 1900 0 0	3800 1900 0 0					

Capacity Analysis Module:

	Vol/Sat:	0.07 0.07	0.00 0.00	0.00 0.00	0.00 0.00	0.18 0.43	0.00 0.00	0.45 0.00
Crit Moves:	****	****	****	****	****	****	****	****
Green/Cycle:	0.05 0.09	0.00 0.00	0.00 0.00	0.00 0.00	0.24 0.84	0.00 0.00	0.00 0.60	0.00
Volume/Cap:	0.75 0.75	0.00 0.00	0.00 0.00	0.00 0.00	0.75 0.52	0.00 0.00	0.75 0.00	
Uniform Del:	40.7 40.7	0.0 0.0	0.0 0.0	0.0 0.0	32.0 2.1	0.0 0.0	0.0 13.5	0.0
IncremntDel:	6.5 6.5	0.0 0.0	0.0 0.0	0.0 0.0	2.6 0.2	0.0 0.0	0.0 1.0	0.0
Delay Adj:	0.85 0.85	0.00 0.00	0.00 0.00	0.00 0.00	0.85 0.85	0.00 0.00	0.00 0.85	0.00
Delay/Veh:	41.1 41.1	0.0 0.0	0.0 0.0	0.0 0.0	29.9 2.0	0.0 0.0	0.0 12.6	0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
AdjDel/Veh:	41.1 41.1	0.0 0.0	0.0 0.0	0.0 0.0	29.9 2.0	0.0 0.0	0.0 12.6	0.0
DesignQueue:	8 8	0 0	0 0	0 0	17 10	0 0	0 26	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	41	3	1	9	29	347	319	1008	346	14	1383	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	3	1	9	29	347	319	1008	346	14	1383	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	3	1	9	29	347	319	1008	346	14	1383	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	42	3	1	9	30	358	329	1039	0	14	1426	5
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	3	1	9	30	358	329	1039	0	14	1426	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	46	3	1	9	30	358	339	1091	0	14	1568	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.79	0.16	0.05	1.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01	0.01
Final Sat.:	5089	287	96	1805	1900	1615	3610	3800	1900	1805	5679	21

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.01	0.02	0.22	0.09	0.29	0.00	0.01	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.23	0.23	0.11	0.32	0.32	0.14	0.53	0.00	0.01	0.40	0.40
Volume/Cap:	0.68	0.05	0.05	0.05	0.05	0.68	0.68	0.54	0.00	0.54	0.68	0.68
Uniform Del:	37.3	22.9	22.9	30.3	17.6	22.3	31.2	11.9	0.0	37.2	18.6	18.6
IncremntDel:	14.6	0.0	0.0	0.0	0.0	2.5	2.7	0.2	0.0	14.2	0.6	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	46.3	19.4	19.4	25.8	15.0	21.5	29.2	10.4	0.0	45.8	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.3	19.4	19.4	25.8	15.0	21.5	29.2	10.4	0.0	45.8	16.4	16.4
DesignQueue:	1	1	1	0	1	14	8	15	0	1	19	19

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.427  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 5.4  
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	0	74	0	44	74	982	0	0	1352	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	74	0	44	74	982	0	0	1352	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	74	0	44	74	982	0	0	1352	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	0	80	0	47	80	1056	0	0	1454	118
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	80	0	47	80	1056	0	0	1454	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	80	0	47	80	1109	0	0	1599	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.77	0.23	0.23
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5218	425	425

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.04	0.00	0.03	0.04	0.29	0.00	0.00	0.31	0.31
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.82	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.00	0.43	0.00	0.28	0.43	0.36	0.00	0.00	0.43	0.43
Uniform Del:	0.0	0.0	0.0	0.0	38.4	0.0	37.8	38.4	2.0	0.0	0.0	5.2	5.2
IncremntDel:	0.0	0.0	0.0	0.0	1.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
DesignQueue:	0	0	0	0	5	0	3	5	7	0	0	12	12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[174.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	5 0 4 0 0 0	0 1102 12 13 1454 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	5 0 4 0 0 0	0 1102 12 13 1454 0
Added Vol:	0 0 0 0 0 0	0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0	0 0 0 0 0 0
Initial Fut:	5 0 4 0 0 0	0 1102 12 13 1454 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.00 0.98 0.98 0.98	0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	5 0 0 0 0 0	0 1124 12 13 1484 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
FinalVolume:	5 0 0 0 0 0	0 1124 12 13 1484 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx

---

Capacity Module:

Cnflict Vol:	2635 xxxx 1124 xxxx xxxx xxxx xxxx xxxx xxxx 1137 xxxx xxxx
Potent Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 622 xxxx xxxx
Move Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 622 xxxx xxxx
Volume/Cap:	0.20 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	0.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx
Control Del:	174.9 xxxx xxxx xxxx xxxx xxxx xxxx 10.9 xxxx xxxx
LOS by Move:	F * * * * * * * * B * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	174.9 xxxxxx xxxx xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[330.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 29 0 196 70 980 0 0 1252 359
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 29 0 196 70 980 0 0 1252 359
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 29 0 196 70 980 0 0 1252 359
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	0 0 0 30 0 0 71 1000 0 0 1278 366
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 0 0 30 0 0 71 1000 0 0 1278 366

---

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol:	xxxxx xxxx xxxx 2420 xxxx 1278 1644 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 36 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 31 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 0.95 xxxx 0.00 0.18 xxxx xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx 3.2 xxxx xxxx 0.6 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx 330.9 xxxx xxxx 16.0 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * F * * C * * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	xxxxxx 330.9 xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.309  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.1  
Optimal Cycle: 20 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0	
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 0 0 0	

Volume Module:

	Base Vol:	256	2	51	0	30	13	82	43	0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 0 0	0 256	2	51	0	30	13	82	43	0
Added Vol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0
PasserByVol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0
Initial Fut:	0 0 0	0 256	2	51	0	30	13	82	43	0
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85
PHF Volume:	0 0 0	301	2	60	0	35	15	96	51	0
Reducet Vol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0
Reduced Vol:	0 0 0	301	2	60	0	35	15	96	51	0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	0 0 0	301	2	60	0	35	15	96	51	0

Saturation Flow Module:

	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	1.00 1.00	1.00 0.85	0.85 0.85	1.00 0.86	0.86 0.86	0.86 0.86	0.86 0.86	0.86 0.86	0.86 0.86	0.86 0.86	0.86 0.86	
Lanes:	0.00 0.00	0.00 0.99	0.99 0.01	1.00 0.00	0.70 0.30	0.66 0.34	0.66 0.34	0.66 0.34	0.66 0.34	0.66 0.34	0.66 0.34	0.66 0.34
Final Sat.:	0 0 0	1602	13	1615	0	1140	494	1072	562	0	0	

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00	0.00 0.19	0.19 0.19	0.04 0.04	0.00 0.03	0.03 0.03	0.09 0.09	0.09 0.09	0.00 0.00
Crit Moves:		****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00 0.00	0.00 0.61	0.61 0.61	0.61 0.61	0.00 0.29	0.29 0.29	0.29 0.29	0.29 0.29	0.29 0.29	0.00 0.00
Volume/Cap:	0.00 0.00	0.00 0.31	0.31 0.31	0.06 0.06	0.00 0.11	0.11 0.31	0.31 0.31	0.31 0.31	0.31 0.31	0.00 0.00
Uniform Del:	0.0 0.0	0.0 0.0	4.3 4.3	3.6 3.6	0.0 11.8	11.8 12.6	12.6 12.6	0.0 0.0	0.0 0.0	0.0 0.0
IncremntDel:	0.0 0.0	0.0 0.0	0.1 0.1	0.0 0.0	0.0 0.0	0.0 0.1	0.1 0.1	0.0 0.0	0.0 0.0	0.0 0.0
Delay Adj:	0.0 0.0	0.0 0.0	0.85 0.85	0.85 0.85	0.00 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.85 0.85	0.00 0.00
Delay/Veh:	0.0 0.0	0.0 0.0	3.7 3.7	3.7 3.7	3.1 3.1	0.0 10.0	10.0 10.8	10.8 10.8	0.0 0.0	0.0 0.0
User DelAdj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
AdjDel/Veh:	0.0 0.0	0.0 0.0	3.7 3.7	3.7 3.7	3.1 3.1	0.0 10.0	10.0 10.8	10.8 10.8	0.0 0.0	0.0 0.0
DesignQueue:	0 0 0	0 4	4 4	1 1	0 1	1 1	4 4	4 4	0 0	0 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.535  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.2  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0	

Volume Module:

	Base Vol:	47	307	0	0	0	75	288	0	0	0	0	0	0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	47	307	0	0	0	75	288	0	0	0	0	0	0	0
Added Vol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	0	0
PasserByVol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	0	0
Initial Fut:	47	307	0	0	0	75	288	0	0	0	0	0	0	0
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92	0.92 0.92
PHF Volume:	51	334	0	0	0	82	313	0	0	0	0	0	0	0
Reducet Vol:	0 0 0	0 0 0	0	0 0	0	0 0	0	0 0	0	0 0	0	0	0	0
Reduced Vol:	51	334	0	0	0	82	313	0	0	0	0	0	0	0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	51	334	0	0	0	82	313	0	0	0	0	0	0	0

Saturation Flow Module:

	Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.13 0.87	0.00 0.00	0.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00	1.00 0.00
Final Sat.:	95	623	0	0	0	724	665	0	0	0	0	0	0	0

Capacity Analysis Module:

	Vol/Sat:	0.54	0.54	xxxx										
Crit Moves:		****	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	13.0	13.0	0.0	0.0	0.0	8.2	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	13.0	0.0	0.0	0.0	8.2	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	B	B	*	*	*	A	B	*	*	*	*	*	*	*
ApproachDel:	13.0					8.2								xxxxxx
Delay Adj:	1.00					1.00								xxxxxx
ApprAdjDel:	13.0					8.2								xxxxxx
LOS by Appr:	B					A								*
AllWayAvgQ:	1.0	1.0	1.0	0.1	0.1	0.1	0.8	0.8	0.8	0.8	0.8	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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**Cumulative Conditions  
Midday Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.401  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.3  
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0 0	0 0 3 0	0 0 3 0 0

Volume Module:

	Base Vol.	Growth Adj:	Initial Bse:	Added Vol:	PasserByVol:	Initial Fut:	User Adj:	PHF Adj:	PHF Volume:	Reduc Vol:	Reduced Vol:	PCE Adj:	MLF Adj:	FinalVolume:
0 0 0 0	128 0 9 0	1.00 1.00 1.00 1.00	0 0 128 0 9 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	1.00 1.00 1.00 1.00	0.90 0.90 0.90 0.90	0 0 142 0 10 0	0 0 0 0 0 0	0 0 142 0 10 0	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	0 0 0 0 0 0

Saturation Flow Module:

	Vol/Lane:	Adjustment:	Lanes:	Final Sat.:
1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1.00 1.00 0.85 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.00 0.00 0.00 0.93 0.00 0.07 0.00 3.00 0.00 0.00 3.00 0.00	0 0 0 1517 0 107 0 5700 0 0 5700 0	

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Green/Cycle:	Volume/Cap:	Uniform Del:	IncremntDel:	Delay Adj:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	DesignQueue:
0.00 0.00 0.00 0.09 0.00 0.09 0.00 0.29 0.00 0.00 0.24 0.00	****	0.00 0.00 0.00 0.23 0.00 0.23 0.00 0.72 0.00 0.00 0.72 0.00	0.00 0.00 0.00 0.40 0.00 0.40 0.00 0.40 0.00 0.00 0.34 0.00	0.0 0.0 0.0 29.5 0.0 29.5 0.0 5.2 0.0 0.0 4.9 0.0	0.0 0.0 0.0 0.4 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0	0.0 0.0 0.0 35.1 35.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 0 0 8 0 8 0 11 0 0 9 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.753  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6  
Optimal Cycle: 61 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol.	Growth Adj:	Initial Bse:	Added Vol:	PasserByVol:	Initial Fut:	User Adj:	PHF Adj:	PHF Volume:	Reduc Vol:	Reduced Vol:	PCE Adj:	MLF Adj:	FinalVolume:
1 395 883 0 0 0	1.00 1.00 1.00 1.00 1.00 1.00	1 395 883 0 0 0	912 525 0 0 1031 324	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	1.00 1.00 0.00 1.00 1.00 1.00	0.94 0.94 0.00 0.94 0.94 0.94	1 420 0 0 0	0 0 0 0 0 0	970 559 0 0 1097 0	1.00 1.00 0.00 1.00 1.00 1.00	1.05 1.05 0.00 1.00 1.00 1.00	1 441 0 0 0

Saturation Flow Module:

	Vol/Lane:	Adjustment:	Lanes:	Final Sat.:
1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900	1.00 1.00 0.95 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.01 1.99 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00	10 3790 1900 0 0 0	3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Green/Cycle:	Volume/Cap:	Uniform Del:	IncremntDel:	Delay Adj:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	DesignQueue:
0.12 0.12 0.00 0.00 0.00 0.00 0.00 0.28 0.29 0.00 0.00 0.30 0.00	****	0.15 0.15 0.00 0.00 0.00 0.00 0.00 0.37 0.77 0.00 0.00 0.40 0.00	0.75 0.75 0.00 0.00 0.00 0.00 0.00 0.75 0.38 0.00 0.00 0.75 0.00	36.9 36.9 0.0 0.0 0.0 0.0 0.0 25.2 3.4 0.0 0.0 23.3 0.0	3.8 3.8 0.0 0.0 0.0 0.0 0.0 1.7 0.1 0.0 0.0 1.5 0.0	0.85 0.85 0.00 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00	35.1 35.1 0.0 0.0 0.0 0.0 0.0 23.2 3.0 0.0 0.0 21.4 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	35.1 35.1 0.0 0.0 0.0 0.0 0.0 23.2 3.0 0.0 0.0 21.4 0.0	35.1 35.1 0.0 0.0 0.0 0.0 0.0 23.2 3.0 0.0 0.0 21.4 0.0	13 13 0 0 0 0 0 23 9 0 0 25 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #3

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.683  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2  
Optimal Cycle: 57 Level Of Service: C

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Ignore	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	2 0 1! 0	1 0 1 0 1	2 0 2 0 1	1 0 2 1 0

---

Volume Module:

Base Vol:	12	0	1	10	1	459	363	1053	15	9	793	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	0	1	10	1	459	363	1053	15	9	793	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	0	1	10	1	459	363	1053	15	9	793	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	12	0	1	10	1	473	374	1086	0	9	818	18
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	0	1	10	1	473	374	1086	0	9	818	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	14	0	1	10	1	473	385	1140	0	9	899	19

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.81	0.00	0.19	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.94	0.06
Final Sat.:	5083	0	334	1805	1900	1615	3610	3800	1900	1805	5580	120

---

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.29	0.11	0.30	0.00	0.01	0.16	0.16
Crit Moves:	****			****		****	****	****				
Green/Cycle:	0.00	0.00	0.15	0.28	0.43	0.43	0.18	0.44	0.00	0.01	0.27	0.27
Volume/Cap:	0.68	0.00	0.02	0.02	0.00	0.68	0.60	0.68	0.00	0.68	0.60	0.60
Uniform Del:	37.8	0.0	27.4	19.7	12.4	17.5	28.7	17.1	0.0	37.6	24.2	24.2
IncremntDel:	37.4	0.0	0.0	0.0	0.0	1.9	1.1	0.8	0.0	51.1	0.5	0.5
Delay Adj:	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.5	0.0	23.3	16.8	10.5	16.8	25.6	15.3	0.0	83.1	21.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.5	0.0	23.3	16.8	10.5	16.8	25.6	15.3	0.0	83.1	21.1	21.1
DesignQueue:	0	0	0	0	0	16	9	19	0	1	13	13

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #4

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Cycle (sec): 120 Critical Vol./Cap.(X): 0.381  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 29 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0 0	1 0 0 0	0 1 0 0	0 0 2 1 0

---

Volume Module:

Base Vol:	0	0	0	102	0	80	130	866	0	0	838	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	102	0	80	130	866	0	0	838	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	102	0	80	130	866	0	0	838	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	0	0	117	0	92	149	995	0	0	963	85
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	117	0	92	149	995	0	0	963	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	117	0	92	149	1045	0	0	1060	94

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.76	0.24
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5185	458

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.08	0.28	0.00	0.00	0.20	0.20
Crit Moves:	****			****		****	****	****				
Green/Cycle:	0.00	0.00	0.00	0.17	0.00	0.17	0.22	0.75	0.00	0.00	0.54	0.54
Volume/Cap:	0.00	0.00	0.00	0.38	0.00	0.33	0.38	0.36	0.00	0.00	0.38	0.38
Uniform Del:	0.0	0.0	0.0	33.5	0.0	33.3	30.4	3.8	0.0	0.0	12.3	12.3
IncremntDel:	0.0	0.0	0.0	0.4	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	28.9	0.0	28.5	26.2	3.3	0.0	0.0	10.5	10.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	28.9	0.0	28.5	26.2	3.3	0.0	0.0	10.5	10.5
DesignQueue:	0	0	0	7	0	5	8	9	0	0	13	13

---

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5

Average Delay (sec/veh): 7.1 Worst Case Level Of Service: F[222.0]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Ignore Include Include Include

Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0

Volume Module:

Base Vol:	63	0	14	0	0	0	0	1027	12	5	872	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	0	14	0	0	0	0	1027	12	5	872	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	0	14	0	0	0	0	1027	12	5	872	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	66	0	0	0	0	0	0	1081	13	5	918	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	66	0	0	0	0	0	0	1081	13	5	918	0

Critical Gap Module:

Critical Gp:	6.4	xxxx	6.2	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	2.2	xxxx	xxxx

Capacity Module:

Cnflict Vol:	2009	xxxx	1081	xxxx	xxxx	xxxx	xxxx	xxxx	1094	xxxx	xxxx
Potent Cap.:	66	xxxx	267	xxxx	xxxx	xxxx	xxxx	xxxx	646	xxxx	xxxx
Move Cap.:	65	xxxx	267	xxxx	xxxx	xxxx	xxxx	xxxx	646	xxxx	xxxx
Volume/Cap:	1.01	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	5.0	xxxx	0.0	xxxx	xxxx						
Control Del:	222.0	xxxx	10.6	xxxx	xxxx						
LOS by Move:	F	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxx	xxxx	xxxx	xxxx							
SharedQueue:	xxxx	xxxx	xxxx	xxxx							
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx							
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	222.0	xxxxxx									
ApproachLOS:	F	*	*	*	*	*	*	*			

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: F[160.4]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Ignore Include Include

Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1

Volume Module:

Critical Gap Module:

Capacity Module:

Level Of Service Module:

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.438  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.8  
Optimal Cycle: 24 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 1 0 0 1 0 0 0 0 1 0 0 0 0

Volume Module:

Base Vol:	0	0	0	220	1	93	0	194	179	85	80	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	220	1	93	0	194	179	85	80	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	220	1	93	0	194	179	85	80	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	0	0	234	1	99	0	206	190	90	85	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	234	1	99	0	206	190	90	85	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	234	1	99	0	206	190	90	85	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.84	0.84	0.58	0.58	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.52	0.48	0.52	0.48	0.00
Final Sat.:	0	0	0	1608	7	1615	0	830	766	568	534	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.15	0.06	0.00	0.25	0.25	0.16	0.16	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.33	0.33	0.33	0.00	0.57	0.57	0.57	0.57	0.00
Volume/Cap:	0.00	0.00	0.00	0.44	0.44	0.18	0.00	0.44	0.44	0.28	0.28	0.00
Uniform Del:	0.0	0.0	0.0	11.9	11.9	10.8	0.0	5.7	5.7	5.1	5.1	0.0
IncremntDel:	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.2	0.2	0.1	0.1	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	10.5	10.5	9.2	0.0	5.0	5.0	4.4	4.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.5	10.5	9.2	0.0	5.0	5.0	4.4	4.4	0.0
DesignQueue:	0	0	0	5	5	2	0	6	6	3	3	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.617  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.8  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Volume Module:

Base Vol:	84	79	0	0	0	88	420	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	84	79	0	0	0	88	420	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	84	79	0	0	0	88	420	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	91	86	0	0	0	96	457	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	86	0	0	0	96	457	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	86	0	0	0	96	457	0	0	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.52	0.48	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	332	313	0	0	0	706	740	0	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.27	0.27	xxxx	xxxx	xxxx	0.14	0.62	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	10.1	10.1	0.0	0.0	0.0	8.3	14.8	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	10.1	0.0	0.0	0.0	8.3	14.8	0.0	0.0	0.0	0.0	0.0
LOS by Move:	B	B	*	*	*	A	B	*	*	*	*	*
ApproachDel:	10.1					8.3			14.8			
Delay Adj:						1.00						
ApprAdjDel:	10.1					8.3			14.8			
LOS by Appr:						A	B					*
AllWayAvgQ:	0.3	0.3	0.3	0.1	0.1	0.1	1.4	1.4	1.4	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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**Cumulative Conditions  
PM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.588  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2  
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10	0 10 0	0 10 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 252 0 8 0 1096 0 0 0 1890 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 252 0 8 0 1096 0 0 0 1890 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 252 0 8 0 1096 0 0 0 1890 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 268 0 9 0 1166 0 0 0 2011 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 268 0 9 0 1166 0 0 0 2011 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00 1.00	
FinalVolume:	0 0 0 268 0 9 0 1283 0 0 0 2212 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.97 0.00 0.03 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1575 0 50 0 5700 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.23 0.00 0.00 0.39 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.66 0.00 0.00 0.66 0.00
Volume/Cap:	0.00 0.00 0.00 0.59 0.00 0.59 0.00 0.34 0.00 0.00 0.59 0.00
Uniform Del:	0.0 0.0 0.0 27.7 0.0 27.7 0.0 6.8 0.0 0.0 8.6 0.0
IncremntDel:	0.0 0.0 0.0 1.4 0.0 1.4 0.0 0.0 0.0 0.0 0.2 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
DesignQueue:	0 0 0 14 0 14 0 10 0 0 19 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 1.082  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 61.6  
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol: 6 739 974 0 0 0 896 592 0 0 1661 400
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	6 739 974 0 0 0 896 592 0 0 1661 400
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	6 739 974 0 0 0 896 592 0 0 1661 400
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume:	7 803 0 0 0 974 643 0 0 1805 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	7 803 0 0 0 974 643 0 0 1805 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.00 1.05 0.00
FinalVolume:	7 843 0 0 0 1003 643 0 0 1896 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.02 1.98 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	31 3769 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.22 0.22 0.00 0.00 0.00 0.00 0.28 0.34 0.00 0.00 0.50 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.21 0.21 0.00 0.00 0.00 0.00 0.26 0.72 0.00 0.00 0.46 0.00
Volume/Cap:	1.08 1.08 0.00 0.00 0.00 0.00 1.08 0.47 0.00 0.00 1.08 0.00
Uniform Del:	36.2 36.2 0.0 0.0 0.0 0.0 33.9 5.5 0.0 0.0 24.6 0.0
IncremntDel:	50.8 50.8 0.0 0.0 0.0 0.0 48.7 0.2 0.0 0.0 42.5 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	81.5 81.5 0.0 0.0 0.0 0.0 77.5 4.9 0.0 0.0 63.4 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	81.5 81.5 0.0 0.0 0.0 0.0 77.5 4.9 0.0 0.0 63.4 0.0
DesignQueue:	24 24 0 0 0 0 27 13 0 0 39 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 1.012  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 40.8  
Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Ignore	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	2 0 1! 0	1 0 1 0 1	2 0 2 0 1	1 0 2 1 0

Volume Module:

Base Vol:	312	4	0	45	9	594	340	1160	3	5	1487	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	312	4	0	45	9	594	340	1160	3	5	1487	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	312	4	0	45	9	594	340	1160	3	5	1487	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	339	4	0	49	10	646	370	1261	0	5	1616	17
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	339	4	0	49	10	646	370	1261	0	5	1616	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	373	4	0	49	10	646	381	1324	0	5	1778	19

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.97	0.03	0.00	1.00	1.00	2.00	2.00	1.00	1.00	2.97	0.03	1.00
Final Sat.:	5354	61	0	1805	1900	1615	3610	3800	1900	1805	5639	61

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.00	0.03	0.01	0.40	0.11	0.35	0.00	0.00	0.32	0.32
Crit Moves:	****			****	****	****	****	****				
Green/Cycle:	0.07	0.34	0.00	0.13	0.40	0.40	0.10	0.41	0.00	0.00	0.31	0.31
Volume/Cap:	1.01	0.21	0.00	0.21	0.01	1.01	1.01	0.84	0.00	0.84	1.01	1.01
Uniform Del:	35.4	18.0	0.0	29.7	14.0	23.0	34.0	20.1	0.0	37.8	26.2	26.2
IncremntDel:	39.0	0.0	0.0	0.1	0.0	30.3	38.8	3.2	0.0	160.9	19.1	19.1
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.1	15.3	0.0	25.3	11.9	49.8	67.8	20.3	0.0	193.1	41.3	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	15.3	0.0	25.3	11.9	49.8	67.8	20.3	0.0	193.1	41.3	41.3
DesignQueue:	7	5	0	2	0	24	10	24	0	0	25	25

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.727  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8  
Optimal Cycle: 57 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0 0	1 0 0 0	0 1 0 0	0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	134	0	471	110	1255	0	0	1111	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	134	0	471	110	1255	0	0	1111	188
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	134	0	471	110	1255	0	0	1111	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	141	0	496	116	1321	0	0	1169	198
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	141	0	496	116	1321	0	0	1169	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	141	0	496	116	1387	0	0	1286	218

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.98	0.98	0.98
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.57	0.43
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	4778	808

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.31	0.06	0.37	0.00	0.00	0.27	0.27
Crit Moves:	****			****	****	****	****	****				
Green/Cycle:	0.00	0.00	0.00	0.42	0.00	0.42	0.10	0.50	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.73	0.66	0.73	0.00	0.00	0.66	0.66
Uniform Del:	0.0	0.0	0.0	16.5	0.0	21.9	39.8	17.8	0.0	0.0	22.0	22.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	2.7	6.2	1.0	0.0	0.0	0.5	0.5
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
DesignQueue:	0	0	0	6	0	20	7	25	0	0	21	21

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[448.1]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	11 0 8 0 0 0	0 1460 5 7 1212 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	11 0 8 0 0 0	0 1460 5 7 1212 0
Added Vol:	0 0 0 0 0 0	0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0	0 0 0 0 0 0
Initial Fut:	11 0 8 0 0 0	0 1460 5 7 1212 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.91 0.91 0.00 0.91 0.91 0.91	0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume:	12 0 0 0 0 0	0 1604 5 8 1332 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
FinalVolume:	12 0 0 0 0 0	0 1604 5 8 1332 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx

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Capacity Module:

Cnflict Vol:	2952 xxxx 1604 xxxx xxxx xxxx xxxx xxxx xxxx 1610 xxxx xxxx
Potent Cap.:	16 xxxx 131 xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx
Move Cap.:	16 xxxx 131 xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx
Volume/Cap:	0.74 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx

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Level Of Service Module:

2Way95thQ:	1.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx
Control Del:	448.1 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 13.9 xxxx xxxx
LOS by Move:	F * * * * * * * * B * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	448.1 xxxxxx xxxx xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 42.3 Worst Case Level Of Service: F[3020.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 40 0 105 193 1368 0 0 1022 328
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 40 0 105 193 1368 0 0 1022 328
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 40 0 105 193 1368 0 0 1022 328
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume:	0 0 0 45 0 0 217 1537 0 0 1148 369
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 0 0 45 0 0 217 1537 0 0 1148 369

---

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol:	xxxxx xxxx xxxx 3119 xxxx 1148 1517 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 13 xxxx 244 446 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 8 xxxx 244 446 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 5.68 xxxx 0.00 0.49 xxxx xxxx xxxx xxxx xxxx

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Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx 7.0 xxxx xxxx 2.6 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx 3021 xxxx xxxx 20.5 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * F * * C * * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxxx xxxx
SharedQueue:	xxxxx xxxx
Shrd ConDel:	xxxxx xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	xxxxxx 3020.9 xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

PM Cumulative NP

Mon May 14, 2007 11:20:50

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.538  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8  
Optimal Cycle: 28 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 1 0 0

Volume Module:

	0	0	0	260	1	31	0	58	50	277	22	0
Base Vol:	0	0	0	260	1	31	0	58	50	277	22	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	260	1	31	0	58	50	277	22	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	260	1	31	0	58	50	277	22	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	0	0	306	1	36	0	68	59	326	26	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	306	1	36	0	68	59	326	26	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	306	1	36	0	68	59	326	26	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.85	0.85	1.00	0.84	0.84	0.63	0.63	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.54	0.46	0.93	0.07	0.00
Final Sat.:	0	0	0	1609	6	1615	0	857	739	1109	88	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.02	0.00	0.08	0.08	0.29	0.29	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.35	0.35	0.35	0.00	0.55	0.55	0.55	0.55	0.00
Volume/Cap:	0.00	0.00	0.00	0.54	0.54	0.06	0.00	0.15	0.15	0.54	0.54	0.00
Uniform Del:	0.0	0.0	0.0	11.8	11.8	9.7	0.0	5.1	5.1	6.6	6.6	0.0
IncremntDel:	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.7	0.7	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	10.8	10.8	8.3	0.0	4.3	4.3	6.3	6.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.8	10.8	8.3	0.0	4.3	4.3	6.3	6.3	0.0
DesignQueue:	0	0	0	7	7	1	0	2	2	6	6	0

Note: Queue reported is the number of cars per lane.

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PM Cumulative NP

Mon May 14, 2007 11:20:51

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.512  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.2  
Optimal Cycle: 0 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0

Volume Module:

	12	138	0	0	0	278	322	0	0	0	0	0
Base Vol:	12	138	0	0	0	278	322	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	138	0	0	0	278	322	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	138	0	0	0	278	322	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	13	148	0	0	0	299	346	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	148	0	0	0	299	346	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	148	0	0	0	299	346	0	0	0	0	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.92	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	53	604	0	0	0	773	676	0	0	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.25	0.25	xxxx	xxxx	xxxx	xxxx	0.39	0.51	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	9.7	9.7	0.0	0.0	0.0	10.0	13.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.7	0.0	0.0	0.0	10.0	13.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	*	A	B	*	*	*	*	*
ApproachDel:	9.7	9.7	10.0	10.0	10.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ApprAdjDel:	9.7	9.7	10.0	10.0	10.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
LOS by Appr:	A	A	B	B	B	*	*	*	*	*	*	*
AllWayAvgQ:	0.3	0.3	0.3	0.5	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9

Note: Queue reported is the number of cars per lane.

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**Cumulative Conditions  
Saturday Midday Peak Hour**

Sat Cumulative NP

Wed May 16, 2007 17:12:28

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.442  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.2  
Optimal Cycle: 26 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 253 0 6 0 1077 0 0 0 1243 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 253 0 6 0 1077 0 0 0 1243 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 253 0 6 0 1077 0 0 0 1243 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95	
PHF Volume:	0 0 0 266 0 6 0 1134 0 0 0 1308 0	
Reducit Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 266 0 6 0 1134 0 0 0 1308 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 266 0 6 0 1247 0 0 0 1439 0	

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.98 0.00 0.02 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1587 0 38 0 5700 0 0 5700 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.22 0.00 0.00 0.25 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.00 0.00 0.00 0.38 0.00 0.38 0.00 0.57 0.00 0.00 0.57 0.00
Volume/Cap:	0.00 0.00 0.00 0.44 0.00 0.44 0.00 0.38 0.00 0.00 0.44 0.00
Uniform Del:	0.0 0.0 0.0 21.1 0.0 21.1 0.0 10.8 0.0 0.0 11.2 0.0
IncremntDel:	0.0 0.0 0.0 0.3 0.0 0.3 0.0 0.0 0.0 0.0 0.1 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 18.3 0.0 18.3 0.0 9.2 0.0 0.0 9.6 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 18.3 0.0 18.3 0.0 9.2 0.0 0.0 9.6 0.0
DesignQueue:	0 0 0 12 0 12 0 13 0 0 15 0

Note: Queue reported is the number of cars per lane.

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Sat Cumulative NP

Wed May 16, 2007 17:12:28

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.812  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4  
Optimal Cycle: 75 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol.	10 437 1027 0 0 0 854 463 0 0 1308 250
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	10 437 1027 0 0 0 854 463 0 0 1308 250	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	10 437 1027 0 0 0 854 463 0 0 1308 250	
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.97 0.97 0.00 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.00	
PHF Volume:	10 451 0 0 0 880 477 0 0 1348 0	
Reducit Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	10 451 0 0 0 880 477 0 0 1348 0	
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00	
FinalVolume:	11 473 0 0 0 907 477 0 0 1416 0	

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.04 1.96 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	85 3715 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

Vol/Sat:	0.13 0.13 0.00 0.00 0.00 0.00 0.25 0.25 0.00 0.00 0.37 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.16 0.16 0.00 0.00 0.00 0.00 0.31 0.77 0.00 0.00 0.46 0.00
Volume/Cap:	0.81 0.81 0.00 0.00 0.00 0.00 0.81 0.33 0.00 0.00 0.81 0.00
Uniform Del:	37.2 37.2 0.0 0.0 0.0 0.0 29.0 3.3 0.0 0.0 21.3 0.0
IncremntDel:	5.8 5.8 0.0 0.0 0.0 0.0 3.3 0.0 0.0 0.0 2.2 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	37.4 37.4 0.0 0.0 0.0 0.0 28.0 2.8 0.0 0.0 20.2 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	37.4 37.4 0.0 0.0 0.0 0.0 28.0 2.8 0.0 0.0 20.2 0.0
DesignQueue:	14 14 0 0 0 0 22 8 0 0 28 0

Note: Queue reported is the number of cars per lane.

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Sat Cumulative NP

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	67	21	0	10	4	400	352	1076	30	13	1119	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	21	0	10	4	400	352	1076	30	13	1119	18
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	21	0	10	4	400	352	1076	30	13	1119	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	71	22	0	11	4	426	374	1145	0	14	1190	19
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	22	0	11	4	426	374	1145	0	14	1190	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	78	22	0	11	4	426	386	1202	0	14	1309	21

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.54	0.46	0.00	1.00	1.00	2.00	2.00	1.00	1.00	2.95	0.05	0.05
Final Sat.:	4631	841	0	1805	1900	1615	3610	3800	1900	1805	5610	90

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.00	0.01	0.00	0.26	0.11	0.32	0.00	0.01	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.02	0.33	0.00	0.07	0.37	0.37	0.15	0.47	0.00	0.01	0.33	0.33
Volume/Cap:	0.71	0.08	0.00	0.08	0.01	0.71	0.71	0.67	0.00	0.67	0.71	0.71
Uniform Del:	36.8	17.8	0.0	32.9	14.9	20.2	30.6	15.6	0.0	37.4	22.2	22.2
IncremntDel:	9.7	0.0	0.0	0.0	0.0	2.6	2.9	0.7	0.0	36.3	0.9	0.9
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	41.0	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.1	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.0	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.1	19.7	19.7
DesignQueue:	2	2	0	1	0	16	9	19	0	1	18	18

Note: Queue reported is the number of cars per lane.

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Sat Cumulative NP

Wed May 16, 2007 17:12:28

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.461  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 32 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	71	0	147	173	917	0	0	1005	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	71	0	147	173	917	0	0	1005	71
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	71	0	147	173	917	0	0	1005	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	76	0	158	186	986	0	0	1081	76
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	76	0	158	186	986	0	0	1081	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	76	0	158	186	1035	0	0	1189	84

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	1.00	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.80	0.20
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5271	372

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.27	0.00	0.00	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.21	0.00	0.21	0.22	0.71	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.46	0.46	0.38	0.00	0.00	0.46	0.46
Uniform Del:	0.0	0.0	0.0	29.5	0.0	31.4	30.7	5.2	0.0	0.0	15.4	15.4
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.0	0.1	0.1	0.1
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	25.1	0.0	27.4	26.7	4.4	0.0	0.0	13.2	13.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.1	0.0	27.4	26.7	4.4	0.0	0.0	13.2	13.2
DesignQueue:	0	0	0	4	0	8	10	11	0	0	15	15

Note: Queue reported is the number of cars per lane.

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-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5  
 \*\*\*\*\*  
 Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[119.4]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Ignore Include Include Include  
 Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
 -----  
 Volume Module:  
 Base Vol: 16 0 4 0 0 0 0 968 17 11 1032 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 16 0 4 0 0 0 0 968 17 11 1032 0  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 16 0 4 0 0 0 0 968 17 11 1032 0  
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
 PHF Volume: 18 0 0 0 0 0 0 1064 19 12 1134 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 18 0 0 0 0 0 0 1064 19 12 1134 0  
 Critical Gap Module:  
 Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
 FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
 -----  
 Capacity Module:  
 Cnflct Vol: 2222 xxxx 1064 xxxx xxxx xxxx xxxx xxxx xxxx 1082 xxxx xxxx  
 Potent Cap.: 48 xxxx 273 xxxx xxxx xxxx xxxx xxxx 652 xxxx xxxx  
 Move Cap.: 48 xxxx 273 xxxx xxxx xxxx xxxx xxxx 652 xxxx xxxx  
 Volume/Cap: 0.37 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
 -----  
 Level Of Service Module:  
 2Way95thQ: 1.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
 Control Del: 119.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
 LOS by Move: F \* \* \* \* \* \* \* B \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue: xxxx  
 Shrd ConDel: xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: 119.4 xxxxxx xxxx xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

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-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #6  
 \*\*\*\*\*  
 Average Delay (sec/veh): 5.8 Worst Case Level Of Service: F[321.2]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Ignore Include Include  
 Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
 -----  
 Volume Module:  
 Base Vol: 0 0 0 30 0 183 135 760 0 0 965 70  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 0 0 30 0 183 135 760 0 0 965 70  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 0 0 30 0 183 135 760 0 0 965 70  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87  
 PHF Volume: 0 0 0 34 0 0 155 874 0 0 1109 80  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 0 0 34 0 0 155 874 0 0 1109 80  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
 FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
 -----  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 2293 xxxx 1109 1190 xxxx xxxx xxxx xxxx xxxx  
 Potent Cap.: xxxx xxxx xxxx 44 xxxx 257 594 xxxx xxxx xxxx xxxx xxxx  
 Move Cap.: xxxx xxxx xxxx 35 xxxx 257 594 xxxx xxxx xxxx xxxx xxxx  
 Volume/Cap: xxxx xxxx xxxx 0.99 xxxx 0.00 0.26 xxxx xxxx xxxx xxxx xxxx  
 -----  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx 3.6 xxxx xxxx 1.0 xxxx xxxx xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx 321.2 xxxx xxxx 13.2 xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: \* \* \* F \* \* B \* \* \* \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: xxxxxx 321.2 xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.324  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.5  
Optimal Cycle: 20 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 1 0 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	Added Vol.	PasserByVol.	Initial Fut.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	FinalVolume:
0	0 0 0 152 1 65 0 90 117 53 83 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0 0 0 152 1 65 0 90 117 53 83 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 152 1 65 0 90 117 53 83 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	0 0 0 195 1 83 0 115 150 68 106 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 195 1 83 0 115 150 68 106 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0 0 0 195 1 83 0 115 150 68 106 0

Saturation Flow Module:

	Vol/Sat:	Adj Moves:	Green/Cycle:	Volume/Cap:	Uniform Del:	IncremntDel:	Delay Adj:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	DesignQueue:
0	0.00 0.00 0.00 0.12 0.12 0.05 0.00 0.17 0.17 0.12 0.12 0.00	****	0.00 0.00 0.00 0.37 0.37 0.37 0.00 0.53 0.53 0.53 0.53 0.00	0.00 0.00 0.00 0.32 0.32 0.14 0.00 0.32 0.32 0.23 0.23 0.00	0.0 0.0 0.0 10.1 10.1 9.4 0.0 6.2 6.2 5.9 5.9 0.0	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.1 0.1 0.0 0.0 0.0	0.00 0.00 0.00 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00	0.0 0.0 0.0 8.7 8.7 8.0 0.0 5.3 5.3 5.0 5.0 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.0 0.0 0.0 8.7 8.7 8.0 0.0 5.3 5.3 5.0 5.0 0.0	0 0 0 4 4 2 0 4 4 3 3 0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.503  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 10.9  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0

Volume Module:

	Base Vol.	Growth Adj.	Initial Bse.	Added Vol.	PasserByVol.	Initial Fut.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	FinalVolume:
50 101 0 0 0 103 261 0 0 0 0 0 0 0 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	50 101 0 0 0 103 261 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	50 101 0 0 0 103 261 0 0 0 0 0 0 0 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73	68 138 0 0 0 141 358 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	68 138 0 0 0 141 358 0 0 0 0 0 0 0 0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	68 138 0 0 0 141 358 0 0 0 0 0 0 0 0

Saturation Flow Module:

	Adjustment:	Lanes:	Final Sat.:
1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	0.33 0.67 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	225 455 0 0 0 751 711 0 0 0 0 0 0 0 0	

Capacity Analysis Module:

	Vol/Sat:	Crit Moves:	Delay/Veh:	Delay Adj:	AdjDel/Veh:	LOS by Move:	ApproachDel:	Delay Adj:	ApprAdjDel:	LOS by Appr:	AllWayAvgQ:
0.30 0.30 xxxx xxxx xxxx 0.19 0.50 xxxx xxxx xxxx xxxx	****	10.1 10.1 0.0 0.0 0.0 8.4 12.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	10.1 10.1 0.0 0.0 0.0 8.4 12.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0	B B * * * A B * * * * * *	10.1 8.4 12.4 xxxxxxxx	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	10.1 8.4 12.4 xxxxxxxx	B A B * * * * *	0.4 0.4 0.4 0.2 0.2 0.2 0.9 0.9 0.9 0.9 0.0 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

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**Cumulative plus Project Conditions  
AM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.673  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
Optimal Cycle: 40 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 441 0 2 0 1113 0 0 0 1701 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 441 0 2 0 1113 0 0 0 1701 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 441 0 2 0 1113 0 0 0 1701 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 469 0 2 0 1184 0 0 0 1810 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 469 0 2 0 1184 0 0 0 1810 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 469 0 2 0 1302 0 0 0 1991 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.99 0.00 0.01 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1617 0 7 0 5700 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.23 0.00 0.00 0.35 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.00 0.00 0.00 0.43 0.00 0.43 0.00 0.52 0.00 0.00 0.52 0.00
Volume/Cap:	0.00 0.00 0.00 0.67 0.00 0.67 0.00 0.44 0.00 0.00 0.67 0.00
Uniform Del:	0.0 0.0 0.0 20.8 0.0 20.8 0.0 13.7 0.0 0.0 16.2 0.0
IncremntDel:	0.0 0.0 0.0 1.8 0.0 1.8 0.0 0.1 0.0 0.0 0.4 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 19.5 0.0 19.5 0.0 11.7 0.0 0.0 14.2 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 19.5 0.0 19.5 0.0 11.7 0.0 0.0 14.2 0.0
DesignQueue:	0 0 0 19 0 19 0 15 0 0 23 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.754  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 15.4  
Optimal Cycle: 62 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol: 23 201 861 0 0 0 608 780 0 0 1545 219
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	23 201 861 0 0 0 608 780 0 0 1545 219
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	23 201 861 0 0 0 608 780 0 0 1545 219
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.00 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume:	24 212 0 0 0 640 821 0 0 1626 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	24 212 0 0 0 640 821 0 0 1626 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00
FinalVolume:	25 222 0 0 0 659 821 0 0 1708 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.99 0.99 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.21 1.79 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	386 3376 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.07 0.07 0.00 0.00 0.00 0.00 0.18 0.43 0.00 0.00 0.45 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.05 0.09 0.00 0.00 0.00 0.00 0.24 0.84 0.00 0.00 0.60 0.00
Volume/Cap:	0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.52 0.00 0.00 0.75 0.00
Uniform Del:	40.7 40.7 0.0 0.0 0.0 0.0 32.0 2.1 0.0 0.0 13.5 0.0
IncremntDel:	6.5 6.5 0.0 0.0 0.0 0.0 2.6 0.2 0.0 0.0 1.0 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	41.1 41.1 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	41.1 41.1 0.0 0.0 0.0 0.0 29.9 2.0 0.0 0.0 12.6 0.0
DesignQueue:	8 8 0 0 0 0 17 10 0 0 26 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 16.8  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	41	3	1	9	29	347	319	1008	346	14	1383	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	3	1	9	29	347	319	1008	346	14	1383	5
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	3	1	9	29	347	319	1008	346	14	1383	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	42	3	1	9	30	358	329	1039	0	14	1426	5
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	3	1	9	30	358	329	1039	0	14	1426	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10	1.10
FinalVolume:	46	3	1	9	30	358	339	1091	0	14	1568	6

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.79	0.16	0.05	1.00	1.00	2.00	2.00	1.00	1.00	2.99	0.01	0.01
Final Sat.:	5089	287	96	1805	1900	1615	3610	3800	1900	1805	5679	21

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.01	0.01	0.02	0.22	0.09	0.29	0.00	0.01	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.01	0.23	0.23	0.11	0.32	0.32	0.14	0.53	0.00	0.01	0.40	0.40
Volume/Cap:	0.68	0.05	0.05	0.05	0.05	0.68	0.68	0.54	0.00	0.54	0.68	0.68
Uniform Del:	37.3	22.9	22.9	30.3	17.6	22.3	31.2	11.9	0.0	37.2	18.6	18.6
IncremntDel:	14.6	0.0	0.0	0.0	0.0	2.5	2.7	0.2	0.0	14.2	0.6	0.6
Delay Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	46.3	19.4	19.4	25.8	15.0	21.5	29.2	10.4	0.0	45.8	16.4	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.3	19.4	19.4	25.8	15.0	21.5	29.2	10.4	0.0	45.8	16.4	16.4
DesignQueue:	1	1	1	0	1	14	8	15	0	1	19	19

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.427  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 5.4  
Optimal Cycle: 31 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	0	74	0	44	74	982	0	0	1352	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	74	0	44	74	982	0	0	1352	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	0	74	0	44	74	982	0	0	1352	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	0	80	0	47	80	1056	0	0	1454	118
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	80	0	47	80	1056	0	0	1454	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	80	0	47	80	1109	0	0	1599	130

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.77	0.23	0.23
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5218	425	425

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.04	0.00	0.03	0.04	0.29	0.00	0.00	0.31	0.31
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.82	0.00	0.00	0.72	0.72
Volume/Cap:	0.00	0.00	0.00	0.00	0.43	0.00	0.28	0.43	0.36	0.00	0.00	0.43	0.43
Uniform Del:	0.0	0.0	0.0	0.0	38.4	0.0	37.8	38.4	2.0	0.0	0.0	5.2	5.2
IncremntDel:	0.0	0.0	0.0	0.0	1.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	0.0	33.6	0.0	32.4	33.6	1.8	0.0	0.0	4.5	4.5
DesignQueue:	0	0	0	0	5	0	3	5	7	0	0	12	12

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 0.4 Worst Case Level Of Service: F[174.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	5 0 4 0 0 0	0 1102 12 13 1454 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	5 0 4 0 0 0	0 1102 12 13 1454 0
Added Vol:	0 0 0 0 0 0	0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0	0 0 0 0 0 0
Initial Fut:	5 0 4 0 0 0	0 1102 12 13 1454 0
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.00 0.98 0.98 0.98	0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	5 0 0 0 0 0	0 1124 12 13 1484 0
Reduc Vol:	0 0 0 0 0 0	0 0 0 0 0 0
FinalVolume:	5 0 0 0 0 0	0 1124 12 13 1484 0

---

Critical Gap Module:

Critical Gp:	6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx
FollowUpTim:	3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx

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Capacity Module:

Cnflict Vol:	2635 xxxx 1124 xxxx xxxx xxxx xxxx xxxx xxxx 1137 xxxx xxxx
Potent Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 622 xxxx xxxx
Move Cap.:	26 xxxx 252 xxxx xxxx xxxx xxxx xxxx xxxx 622 xxxx xxxx
Volume/Cap:	0.20 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx

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Level Of Service Module:

2Way95thQ:	0.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx
Control Del:	174.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.9 xxxx xxxx
LOS by Move:	F * * * * * * * * B * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	174.9 xxxxxx xxxx xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 4.0 Worst Case Level Of Service: F[330.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

---

Volume Module:

Base Vol:	0 0 0 29 0 196 70 980 0 0 1252 359
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 29 0 196 70 980 0 0 1252 359
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 29 0 196 70 980 0 0 1252 359
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
PHF Volume:	0 0 0 30 0 0 71 1000 0 0 1278 366
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 0 0 30 0 0 71 1000 0 0 1278 366

---

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	3.5 xxxx 3.3 xxxx 2.2 xxxx xxxx xxxx xxxx xxxx

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Capacity Module:

Cnflict Vol:	xxxxx xxxx xxxx 2420 xxxx 1278 1644 xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 36 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 31 xxxx 205 399 xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 0.95 xxxx 0.00 0.18 xxxx xxxx xxxx xxxx xxxx

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Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx 3.2 xxxx xxxx 0.6 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx 330.9 xxxx xxxx 16.0 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * * F * * C * * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * *
ApproachDel:	xxxxxx 330.9 xxxx xxxx
ApproachLOS:	F * *

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #7

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Cycle (sec): 60 Critical Vol./Cap.(X): 0.310  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.1  
Optimal Cycle: 20 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 0 0 0

---

Volume Module:

	0	0	0	256	2	51	0	30	13	82	43	0
Base Vol:	0	0	0	256	2	51	0	30	13	82	43	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	256	2	51	0	30	13	82	43	0
Added Vol:	0	0	0	0	0	1	0	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	256	2	52	0	30	14	82	44	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	0	0	301	2	61	0	35	16	96	52	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	301	2	61	0	35	16	96	52	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	301	2	61	0	35	16	96	52	0

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.85	0.85	1.00	0.86	0.86	0.86	0.86	0.86	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.68	0.32	0.65	0.35	0.00
Final Sat.:	0	0	0	1602	13	1615	0	1114	520	1063	571	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.04	0.00	0.03	0.03	0.09	0.09	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.61	0.61	0.61	0.00	0.29	0.29	0.29	0.29	0.00
Volume/Cap:	0.00	0.00	0.00	0.31	0.31	0.06	0.00	0.11	0.11	0.31	0.31	0.00
Uniform Del:	0.0	0.0	0.0	4.3	4.3	3.7	0.0	11.8	11.8	12.5	12.5	0.0
IncremntDel:	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	3.7	3.7	3.1	0.0	10.0	10.0	10.8	10.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	3.7	3.7	3.1	0.0	10.0	10.0	10.8	10.8	0.0
DesignQueue:	0	0	0	4	4	1	0	1	1	4	4	0

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

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Intersection #8

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.537  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.2  
Optimal Cycle: 0 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0

---

Volume Module:

	47	307	0	0	0	75	288	0	0	0	0	0
Base Vol:	47	307	0	0	0	75	288	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	307	0	0	0	75	288	0	0	0	0	0
Added Vol:	1	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	48	307	0	0	0	75	288	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	52	334	0	0	0	82	313	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	334	0	0	0	82	313	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	52	334	0	0	0	82	313	0	0	0	0	0

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Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.14	0.86	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	97	622	0	0	0	724	664	0	0	0	0	0

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Capacity Analysis Module:

Vol/Sat:	0.54	0.54	xxxx	xxxx	xxxx	xxxx	0.11	0.47	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	13.0	13.0	0.0	0.0	0.0	8.2	12.4	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	13.0	0.0	0.0	0.0	8.2	12.4	0.0	0.0	0.0	0.0	0.0
LOS by Move:	B	B	*	*	*	A	B	*	*	*	*	*
ApproachDel:	13.0					8.2		12.4				
Delay Adj:						1.00						
ApprAdjDel:						13.0		8.2		12.4		
LOS by Appr:						B		A		B		*
AllWayAvgQ:	1.0	1.0	1.0	0.1	0.1	0.1	0.8	0.8	0.8	0.8	0.0	0.0

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Note: Queue reported is the number of cars per lane.

**Cumulative plus Project Conditions  
Midday Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.401  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 5.3  
Optimal Cycle: 26 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0 0	10 10 10	0 10	0 10	
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0	

Volume Module:

	Base Vol:	0 0 0 128 0 9 0 1340 0 0 0 1137 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 128 0 9 0 1340 0 0 0 1137 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 1 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 128 0 9 0 1340 0 0 0 1138 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90	
PHF Volume:	0 0 0 142 0 10 0 1489 0 0 0 1264 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 142 0 10 0 1489 0 0 0 1264 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 142 0 10 0 1638 0 0 0 1391 0	

Saturation Flow Module:

	Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.85 1.00 0.85 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Lanes:	0.00 0.00 0.00 0.93 0.00 0.07 0.00 3.00 0.00 0.00 3.00 0.00	
Final Sat.:	0 0 0 1517 0 107 0 5700 0 0 5700 0	

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00 0.00 0.09 0.00 0.09 0.00 0.29 0.00 0.00 0.24 0.00
Crit Moves:	**** * * * *	
Green/Cycle:	0.00 0.00 0.00 0.23 0.00 0.23 0.00 0.72 0.00 0.00 0.72 0.00	
Volume/Cap:	0.00 0.00 0.00 0.40 0.00 0.40 0.00 0.40 0.00 0.00 0.34 0.00	
Uniform Del:	0.0 0.0 0.0 29.5 0.0 29.5 0.0 5.2 0.0 0.0 4.9 0.0	
IncremntDel:	0.0 0.0 0.0 0.4 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0	
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00	
Delay/Veh:	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0	
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
AdjDel/Veh:	0.0 0.0 0.0 25.5 0.0 25.5 0.0 4.4 0.0 0.0 4.1 0.0	
DesignQueue:	0 0 0 8 0 8 0 11 0 0 9 0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 0.753  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 20.6  
Optimal Cycle: 61 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore	
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Lanes:	0 1 1 0 1 0 1 0 0 0 0 0 0 0 2 0 1 0 0 0 0 0 2 0 1				

Volume Module:

	Base Vol:	1 395 883 0 0 0 912 525 0 0 1031 324
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	1 395 883 0 0 0 912 525 0 0 1031 324	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 1 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	1 395 883 0 0 0 912 525 0 0 1032 324	
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.00 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.00	
PHF Volume:	1 420 0 0 0 970 559 0 0 1098 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	1 420 0 0 0 970 559 0 0 1098 0	
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.00 1.05 0.00	
FinalVolume:	1 441 0 0 0 999 559 0 0 1153 0	

Saturation Flow Module:

	Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00	
Lanes:	0.01 1.99 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00	
Final Sat.:	10 3790 1900 0 0 0 3610 1900 0 0 3800 1900	

Capacity Analysis Module:

	Vol/Sat:	0.12 0.12 0.00 0.00 0.00 0.00 0.28 0.29 0.00 0.00 0.30 0.00
Crit Moves:	**** * * * *	
Green/Cycle:	0.15 0.15 0.00 0.00 0.00 0.00 0.37 0.77 0.00 0.00 0.40 0.00	
Volume/Cap:	0.75 0.75 0.00 0.00 0.00 0.00 0.75 0.38 0.00 0.00 0.75 0.00	
Uniform Del:	36.9 36.9 0.0 0.0 0.0 0.0 25.2 3.4 0.0 0.0 23.3 0.0	
IncremntDel:	3.8 3.8 0.0 0.0 0.0 0.0 1.7 0.1 0.0 0.0 1.5 0.0	
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00	
Delay/Veh:	35.1 35.1 0.0 0.0 0.0 0.0 23.2 3.0 0.0 0.0 21.4 0.0	
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
AdjDel/Veh:	35.1 35.1 0.0 0.0 0.0 0.0 23.2 3.0 0.0 0.0 21.4 0.0	
DesignQueue:	13 13 0 0 0 0 23 9 0 0 25 0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.2  
Optimal Cycle: 57 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	12	0	1	10	1	459	363	1053	15	9	793	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	0	1	10	1	459	363	1053	15	9	793	17
Added Vol:	0	0	0	0	0	0	0	0	0	1	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	12	0	1	10	1	459	363	1053	15	9	794	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	12	0	1	10	1	473	374	1086	0	9	819	18
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	12	0	1	10	1	473	374	1086	0	9	819	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	14	0	1	10	1	473	385	1140	0	9	900	19

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.95	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.81	0.00	0.19	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.94	0.06
Final Sat.:	5083	0	334	1805	1900	1615	3610	3800	1900	1805	5581	119

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.01	0.00	0.29	0.11	0.30	0.00	0.01	0.16	0.16
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.15	0.28	0.43	0.43	0.18	0.44	0.00	0.01	0.27	0.27
Volume/Cap:	0.68	0.00	0.02	0.02	0.00	0.68	0.60	0.68	0.00	0.68	0.60	0.60
Uniform Del:	37.8	0.0	27.4	19.7	12.4	17.5	28.7	17.1	0.0	37.6	24.2	24.2
IncremntDel:	37.4	0.0	0.0	0.0	0.0	1.9	1.1	0.8	0.0	51.1	0.5	0.5
Delay Adj:	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.5	0.0	23.3	16.8	10.5	16.8	25.6	15.3	0.0	83.1	21.1	21.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.5	0.0	23.3	16.8	10.5	16.8	25.6	15.3	0.0	83.1	21.1	21.1
DesignQueue:	0	0	0	0	0	16	9	19	0	1	13	13

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.381  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 9.9  
Optimal Cycle: 29 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	102	0	80	130	866	0	0	838	74
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	102	0	80	130	866	0	0	838	74
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	102	0	80	130	866	0	0	839	74
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	0	0	117	0	92	149	995	0	0	964	85
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	117	0	92	149	995	0	0	964	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	117	0	92	149	1045	0	0	1061	94

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.76	0.24
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5186	457

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.06	0.08	0.28	0.00	0.00	0.20	0.20
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.17	0.00	0.17	0.22	0.75	0.00	0.00	0.54	0.54
Volume/Cap:	0.00	0.00	0.00	0.38	0.00	0.33	0.38	0.36	0.00	0.00	0.38	0.38
Uniform Del:	0.0	0.0	0.0	33.6	0.0	33.3	30.5	3.8	0.0	0.0	12.3	12.3
IncremntDel:	0.0	0.0	0.0	0.4	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	28.9	0.0	28.6	26.2	3.3	0.0	0.0	10.5	10.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	28.9	0.0	28.6	26.2	3.3	0.0	0.0	10.5	10.5
DesignQueue:	0	0	0	7	0	5	8	9	0	0	13	13

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 7.1 Worst Case Level Of Service: F[222.7]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

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Volume Module:

Base Vol:	63	0	14	0	0	0	0	1027	12	5	872	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	63	0	14	0	0	0	0	1027	12	5	872	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	0	14	0	0	0	0	1027	12	5	873	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	66	0	0	0	0	0	0	1081	13	5	919	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	66	0	0	0	0	0	0	1081	13	5	919	0

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Critical Gap Module:

Critical Gp:	6.4 xxxx	6.2 xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.1 xxxx	xxxx	xxxx
FollowUpTim:	3.5 xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxx	2.2 xxxx	xxxx	xxxx

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Capacity Module:

Cnflict Vol:	2011	xxxx	1081	xxxx	xxxx	xxxx	xxxx	xxxx	1094	xxxx	xxxx
Potent Cap.:	66	xxxx	267	xxxx	xxxx	xxxx	xxxx	xxxx	646	xxxx	xxxx
Move Cap.:	65	xxxx	267	xxxx	xxxx	xxxx	xxxx	xxxx	646	xxxx	xxxx
Volume/Cap:	1.02	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx

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Level Of Service Module:

2Way95thQ:	5.1	xxxx	0.0	xxxx	xxxx						
Control Del:	222.7	xxxx	10.6	xxxx	xxxx						
LOS by Move:	F	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxx	xxxx	xxxx	xxxx							
SharedQueue:	xxxx	xxxx	xxxx	xxxx							
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx							
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	222.7	xxxxxx		xxxxxx		xxxxxx		xxxxxx		xxxxxx	
ApproachLOS:	F	*	*	*	*	*	*	*	F	*	*

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 4.2 Worst Case Level Of Service: F[160.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

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Volume Module:

Base Vol:	0	0	0	37	0	116	164	827	0	0	689	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	37	0	116	164	827	0	0	689	143
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	37	0	116	164	827	0	0	690	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.00	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	40	0	0	0	176	889	0	0	742
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	40	0	0	0	176	889	0	0	742

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Critical Gap Module:

Critical Gp:	xxxxxx	xxxx	xxxx	6.4 xxxx	6.2	4.1 xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
FollowUpTim:	xxxxxx	xxxxxx	xxxxxx	3.5 xxxx	3.3	2.2 xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx

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Capacity Module:

Cnflict Vol:	xxxx	xxxx	1984	xxxx	742	896	xxxx	xxxx	xxxx	xxxx	xxxx
Potent Cap.:	xxxx	xxxx	68	xxxx	419	766	xxxx	xxxx	xxxx	xxxx	xxxx
Move Cap.:	xxxx	xxxx	56	xxxx	419	766	xxxx	xxxx	xxxx	xxxx	xxxx
Volume/Cap:	xxxx	xxxx	0.71	xxxx	0.00	0.23	xxxx	xxxx	xxxx	xxxx	xxxx

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Level Of Service Module:

2Way95thQ:	xxxx	xxxx	3.0	xxxx	xxxx	0.9	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxxxx	xxxxxx	160.9	xxxx	xxxx	11.1	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	F	*	*	B	*	*	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxx										
SharedQueue:	xxxx										
Shrd ConDel:	xxxx										
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			160.9	xxxxxx		xxxxxx		xxxxxx		xxxxxx
ApproachLOS:	F	*	*		F	*	*	*	*	*	*

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #7

Cycle (sec): 60 Critical Vol./Cap.(X): 0.459  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.8  
Optimal Cycle: 25 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0	
Lanes:	0 0 0 0	0 1 0 0	0 0 0 1	0 0 0 0	

Volume Module:

	Base Vol:	0 0 0 220 1 93 0 194 179 85 80 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 220 1 93 0 194 179 85 80 0	
Added Vol:	0 0 0 0 0 2 0 6 17 0 5 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 220 1 95 0 200 196 85 85 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 234 1 101 0 213 209 90 90 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 234 1 101 0 213 209 90 90 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	0 0 0 234 1 101 0 213 209 90 90 0	

Saturation Flow Module:

	Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.85 0.85 1.00 0.83 0.83 0.56 0.56 1.00	
Lanes:	0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.51 0.49 0.50 0.50 0.00	
Final Sat.:	0 0 0 1608 7 1615 0 796 781 532 532 0	

Capacity Analysis Module:

	Vol/Sat:	0.00 0.00 0.00 0.15 0.15 0.06 0.00 0.27 0.27 0.17 0.17 0.00
Crit Moves:	**** ****	
Green/Cycle:	0.00 0.00 0.00 0.32 0.32 0.32 0.00 0.58 0.58 0.58 0.58 0.00	
Volume/Cap:	0.00 0.00 0.00 0.46 0.46 0.20 0.00 0.46 0.46 0.29 0.29 0.00	
Uniform Del:	0.0 0.0 0.0 12.4 12.4 11.3 0.0 5.4 5.4 4.8 4.8 0.0	
IncremntDel:	0.0 0.0 0.0 0.5 0.5 0.0 0.0 0.3 0.3 0.1 0.1 0.0	
Delay Adj:	0.0 0.0 0.0 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00	
Delay/Veh:	0.0 0.0 0.0 11.0 11.0 9.7 0.0 4.9 4.9 4.1 4.1 0.0	
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
AdjDel/Veh:	0.0 0.0 0.0 11.0 11.0 9.7 0.0 4.9 4.9 4.1 4.1 0.0	
DesignQueue:	0 0 0 6 6 2 0 6 6 3 3 0	

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #8

Cycle (sec): 100 Critical Vol./Cap.(X): 0.627  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 13.0  
Optimal Cycle: 0 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

	Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include	
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	
Lanes:	0 1 0 0 0 0	0 0 0 0 0 1	1 0 0 0 0 0	0 0 0 0 0 0	

Volume Module:

	Base Vol:	84 79 0 0 0 88 420 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	84 79 0 0 0 88 420 0 0 0 0 0 0	
Added Vol:	5 0 0 0 0 0 0 0 0 6 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	89 79 0 0 0 88 426 0 0 0 0 0 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	
PHF Volume:	97 86 0 0 0 96 463 0 0 0 0 0 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	97 86 0 0 0 96 463 0 0 0 0 0 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
FinalVolume:	97 86 0 0 0 96 463 0 0 0 0 0 0	

Saturation Flow Module:

	Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.53 0.47 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00	
Final Sat.:	340 302 0 0 0 702 738 0 0 0 0 0 0	

Capacity Analysis Module:

	Vol/Sat:	0.28 0.28 xxxx xxxx xxxx 0.14 0.63 xxxx xxxx xxxx xxxx
Crit Moves:	**** ****	
Delay/Veh:	10.2 10.2 0.0 0.0 0.0 8.4 15.1 0.0 0.0 0.0 0.0 0.0 0.0	
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
AdjDel/Veh:	10.2 10.2 0.0 0.0 0.0 8.4 15.1 0.0 0.0 0.0 0.0 0.0 0.0	
LOS by Move:	B B * * * A C * * * * *	
ApproachDel:	10.2 8.4 15.1 xxxxxxxx	
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
ApprAdjDel:	10.2 8.4 15.1 xxxxxxxx	
LOS by Appr:	B A C *	
AllWayAvg:	0.3 0.3 0.3 0.1 0.1 0.1 1.5 1.5 1.5 0.0 0.0 0.0	

Note: Queue reported is the number of cars per lane.

**Cumulative plus Project Conditions  
PM Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #1

Cycle (sec): 120 Critical Vol./Cap.(X): 0.588  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2  
Optimal Cycle: 33 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

Volume Module:

	Base Vol.	0 0 0 252 0 8 0 1096 0 0 0 1890 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
Initial Bse:	0 0 0 252 0 8 0 1096 0 0 0 1890 0	
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Initial Fut:	0 0 0 252 0 8 0 1096 0 0 0 1890 0	
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
PHF Adj:	0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	
PHF Volume:	0 0 0 268 0 9 0 1166 0 0 0 2011 0	
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0	
Reduced Vol:	0 0 0 268 0 9 0 1166 0 0 0 2011 0	
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.10 1.00 1.00 1.10 1.00 1.00	
FinalVolume:	0 0 0 268 0 9 0 1283 0 0 0 2212 0	

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86 1.00 0.86 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.00 0.00 0.00 0.97 0.00 0.03 0.00 3.00 0.00 0.00 3.00 0.00
Final Sat.:	0 0 0 1575 0 50 0 5700 0 0 5700 0

Capacity Analysis Module:

	Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.17 0.00 0.23 0.00 0.00 0.39 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.00 0.00 0.00 0.29 0.00 0.29 0.00 0.66 0.00 0.00 0.66 0.00
Volume/Cap:	0.00 0.00 0.00 0.59 0.00 0.59 0.00 0.34 0.00 0.00 0.59 0.00
Uniform Del:	0.0 0.0 0.0 27.7 0.0 27.7 0.0 6.8 0.0 0.0 8.6 0.0
IncremntDel:	0.0 0.0 0.0 1.4 0.0 1.4 0.0 0.0 0.0 0.0 0.2 0.0
Delay Adj:	0.00 0.00 0.00 0.85 0.00 0.85 0.00 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 25.0 0.0 25.0 0.0 5.8 0.0 0.0 7.5 0.0
DesignQueue:	0 0 0 14 0 14 0 10 0 0 19 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #2

Cycle (sec): 120 Critical Vol./Cap.(X): 1.082  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 61.6  
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0 1	0 0 0 0 0	0 2 0 1 0 0	0 0 2 0 1

Volume Module:

	Base Vol: 6 739 974 0 0 0 896 592 0 0 1661 400
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	6 739 974 0 0 0 896 592 0 0 1661 400
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	6 739 974 0 0 0 896 592 0 0 1661 400
User Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.00 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00
PHF Volume:	7 803 0 0 0 974 643 0 0 1805 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	7 803 0 0 0 974 643 0 0 1805 0
PCE Adj:	1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.05 1.05 0.00 1.00 1.00 1.00 1.03 1.00 1.00 1.00 1.00 1.05 0.00
FinalVolume:	7 843 0 0 0 1003 643 0 0 1896 0

Saturation Flow Module:

	Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00
Lanes:	0.02 1.98 1.00 0.00 0.00 0.00 2.00 1.00 0.00 0.00 2.00 1.00
Final Sat.:	31 3769 1900 0 0 0 3610 1900 0 0 3800 1900

Capacity Analysis Module:

	Vol/Sat: 0.22 0.22 0.00 0.00 0.00 0.00 0.28 0.34 0.00 0.00 0.50 0.00
Crit Moves:	**** * * * *
Green/Cycle:	0.21 0.21 0.00 0.00 0.00 0.00 0.26 0.72 0.00 0.00 0.46 0.00
Volume/Cap:	1.08 1.08 0.00 0.00 0.00 0.00 1.08 0.47 0.00 0.00 1.08 0.00
Uniform Del:	36.2 36.2 0.0 0.0 0.0 0.0 33.9 5.5 0.0 0.0 24.6 0.0
IncremntDel:	50.8 50.8 0.0 0.0 0.0 0.0 48.7 0.2 0.0 0.0 42.5 0.0
Delay Adj:	0.85 0.85 0.00 0.00 0.00 0.00 0.85 0.85 0.00 0.00 0.85 0.00
Delay/Veh:	81.5 81.5 0.0 0.0 0.0 0.0 77.5 4.9 0.0 0.0 63.4 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	81.5 81.5 0.0 0.0 0.0 0.0 77.5 4.9 0.0 0.0 63.4 0.0
DesignQueue:	24 24 0 0 0 0 27 13 0 0 39 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #3

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Cycle (sec): 100 Critical Vol./Cap.(X): 1.012  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 40.8  
Optimal Cycle: 180 Level Of Service: E

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Ignore	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	2 0 1! 0	1 0 1 0 1	2 0 2 0 1	1 0 2 1 0

---

Volume Module:

Base Vol:	312	4	0	45	9	594	340	1160	3	5	1487	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	312	4	0	45	9	594	340	1160	3	5	1487	16
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	312	4	0	45	9	594	340	1160	3	5	1487	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	339	4	0	49	10	646	370	1261	0	5	1616	17
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	339	4	0	49	10	646	370	1261	0	5	1616	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	373	4	0	49	10	646	381	1324	0	5	1778	19

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.95	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	1.00
Lanes:	2.97	0.03	0.00	1.00	1.00	2.00	2.00	1.00	1.00	2.97	0.03	
Final Sat.:	5354	61	0	1805	1900	1615	3610	3800	1900	1805	5639	61

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Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.00	0.03	0.01	0.40	0.11	0.35	0.00	0.00	0.32	0.32
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.07	0.34	0.00	0.13	0.40	0.40	0.10	0.41	0.00	0.00	0.31	0.31
Volume/Cap:	1.01	0.21	0.00	0.21	0.01	1.01	1.01	0.84	0.00	0.84	1.01	1.01
Uniform Del:	35.4	18.0	0.0	29.7	14.0	23.0	34.0	20.1	0.0	37.8	26.2	26.2
IncremntDel:	39.0	0.0	0.0	0.1	0.0	30.3	38.8	3.2	0.0	160.9	19.1	19.1
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	69.1	15.3	0.0	25.3	11.9	49.8	67.8	20.3	0.0	193.1	41.3	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	69.1	15.3	0.0	25.3	11.9	49.8	67.8	20.3	0.0	193.1	41.3	41.3
DesignQueue:	7	5	0	2	0	24	10	24	0	0	25	25

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #4

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Cycle (sec): 120 Critical Vol./Cap.(X): 0.727  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 18.8  
Optimal Cycle: 57 Level Of Service: C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0 0	1 0 0 0	0 1 0 0	0 0 2 1 0

---

Volume Module:

Base Vol:	0	0	0	134	0	471	110	1255	0	0	1111	188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	134	0	471	110	1255	0	0	1111	188
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	134	0	471	110	1255	0	0	1111	188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	141	0	496	116	1321	0	0	1169	198
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	141	0	496	116	1321	0	0	1169	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	141	0	496	116	1387	0	0	1286	218

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Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	1.00	0.98	0.98
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.57	0.43
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	4778	808

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.31	0.06	0.37	0.00	0.00	0.27	0.27
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.42	0.00	0.42	0.10	0.50	0.00	0.00	0.41	0.41
Volume/Cap:	0.00	0.00	0.00	0.18	0.00	0.73	0.66	0.73	0.00	0.00	0.66	0.66
Uniform Del:	0.0	0.0	0.0	16.5	0.0	21.9	39.8	17.8	0.0	0.0	22.0	22.0
IncremntDel:	0.0	0.0	0.0	0.0	0.0	2.7	6.2	1.0	0.0	0.0	0.5	0.5
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.0	0.0	21.3	39.9	16.1	0.0	0.0	19.3	19.3
DesignQueue:	0	0	0	6	0	20	7	25	0	0	21	21

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #5

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Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[448.1]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Ignore	Include	Include	Include
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	11	0	8	0	0	0	0	1460	5	7	1212	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	0	8	0	0	0	0	1460	5	7	1212	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	0	8	0	0	0	0	1460	5	7	1212	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.00	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	12	0	0	0	0	0	0	1604	5	8	1332	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	0	0	0	0	0	0	1604	5	8	1332	0

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Critical Gap Module:

Critical Gp:	6.4 xxxx	6.2 xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.1 xxxx	xxxx	xxxx
FollowUpTim:	3.5 xxxx	3.3	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxx	2.2 xxxx	xxxx	xxxx

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Capacity Module:

Cnflict Vol:	2952	xxxxx	1604	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1610	xxxxx	xxxxx
Potent Cap.:	16	xxxxx	131	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	411	xxxxx	xxxxx
Move Cap.:	16	xxxxx	131	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	411	xxxxx	xxxxx
Volume/Cap:	0.74	xxxxx	0.00	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.02	xxxxx	xxxxx

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Level Of Service Module:

2Way95thQ:	1.9	xxxxx	0.1	xxxxx	xxxxx						
Control Del:	448.1	xxxxx	13.9	xxxxx	xxxxx						
LOS by Move:	F	*	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx							
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx							
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	448.1	xxxxxx									
ApproachLOS:	F	*	*	*	*	*	*	*			

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #6

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Average Delay (sec/veh): 42.3 Worst Case Level Of Service: F[3020.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Ignore	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	1 0 1 0 0	0 0 1 0 1

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Volume Module:

Base Vol:	0	0	0	40	0	105	193	1368	0	0	1022	328
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	40	0	105	193	1368	0	0	1022	328
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	40	0	105	193	1368	0	0	1022	328
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.00	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	0	0	0	45	0	0	217	1537	0	0	1148	369
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	45	0	0	217	1537	0	0	1148	369

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Critical Gap Module:

Critical Gp:	xxxxx	xxxxx	xxxxx	6.4 xxxx	6.2	4.1 xxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
FollowUpTim:	xxxxx	xxxxx	xxxxx	3.5 xxxx	3.3	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

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Capacity Module:

Cnflict Vol:	xxxxx	xxxxx	3119	xxxxx	1148	1517	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Potent Cap.:	xxxxx	xxxxx	13	xxxxx	244	446	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Move Cap.:	xxxxx	xxxxx	xxxxx	8	xxxxx	244	446	xxxxx	xxxxx	xxxxx	xxxxx
Volume/Cap:	xxxxx	xxxxx	5.68	xxxxx	0.00	0.49	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx

---

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	7.0	xxxxx	xxxxx	2.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	3021	xxxxx	xxxxx	20.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	*	*	*	F	*	*	C	*	*	*	*
Movement:	LT - LTR - RT										
Shared Cap.:	xxxxx										
SharedQueue:	xxxxx										
Shrd ConDel:	xxxxx										
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	3020.9	xxxxxx							
ApproachLOS:	F	*	*	F	*	*	*	*	*	*	*

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #7

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Cycle (sec): 60 Critical Vol./Cap.(X): 0.539  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8  
Optimal Cycle: 28 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 0 1 0

---

Volume Module:

Base Vol:	0	0	0	260	1	31	0	58	50	277	22	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	260	1	31	0	58	50	277	22	0
Added Vol:	0	0	0	0	0	0	0	1	2	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	260	1	31	0	59	52	277	23	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	0	0	0	306	1	36	0	69	61	326	27	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	306	1	36	0	69	61	326	27	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	306	1	36	0	69	61	326	27	0

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.85	0.85	1.00	0.84	0.84	0.63	0.63	1.00	1.00
Lanes:	0.00	0.00	0.00	0.99	0.01	1.00	0.00	0.53	0.47	0.92	0.08	0.00
Final Sat.:	0	0	0	1609	6	1615	0	848	748	1105	92	0

---

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.19	0.19	0.02	0.00	0.08	0.08	0.29	0.29	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.35	0.35	0.35	0.00	0.55	0.55	0.55	0.55	0.00
Volume/Cap:	0.00	0.00	0.00	0.54	0.54	0.06	0.00	0.15	0.15	0.54	0.54	0.00
Uniform Del:	0.0	0.0	0.0	11.8	11.8	9.8	0.0	5.1	5.1	6.6	6.6	0.0
IncremntDel:	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.7	0.7	0.0
Delay Adj:	0.00	0.00	0.00	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00
Delay/Veh:	0.0	0.0	0.0	10.8	10.8	8.3	0.0	4.3	4.3	6.3	6.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	10.8	10.8	8.3	0.0	4.3	4.3	6.3	6.3	0.0
DesignQueue:	0	0	0	7	7	1	0	2	2	6	6	0

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

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Intersection #8

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Cycle (sec): 100 Critical Vol./Cap.(X): 0.514  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.2  
Optimal Cycle: 0 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 1 0 0	0 0 0 0	0 0 0 1	1 0 0 0

---

Volume Module:

Base Vol:	12	138	0	0	0	278	322	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	138	0	0	0	278	322	0	0	0	0	0
Added Vol:	1	0	0	0	0	0	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	138	0	0	0	278	323	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	14	148	0	0	0	299	347	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	148	0	0	0	299	347	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	148	0	0	0	299	347	0	0	0	0	0

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Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.09	0.91	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	56	599	0	0	0	772	675	0	0	0	0	0

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Capacity Analysis Module:

Vol/Sat:	0.25	0.25	xxxx	xxxx	xxxx	0.39	0.51	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Delay/Veh:	9.7	9.7	0.0	0.0	0.0	10.0	13.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.7	0.0	0.0	0.0	10.0	13.0	0.0	0.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	*	A	B	*	*	*	*	*
ApproachDel:	9.7	9.7	10.0	10.0	10.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
ApprAdjDel:	9.7	9.7	10.0	10.0	10.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
LOS by Appr:	A	A	*	*	*	B	A	*	*	*	*	*
AllWayAvgQ:	0.3	0.3	0.3	0.5	0.5	0.5	0.9	0.9	0.9	0.9	0.9	0.9

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Note: Queue reported is the number of cars per lane.

**Cumulative plus Project Conditions  
Saturday Midday Peak Hour**

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #1

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Cycle (sec): 120 Critical Vol./Cap.(X): 0.443  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 10.2  
Optimal Cycle: 26 Level Of Service: B

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	10 10 10 0	0 10 0 0	0 10 0 0
Lanes:	0 0 0 0	0 0 1! 0	0 0 3 0	0 0 3 0

---

Volume Module:

Base Vol:	0 0 0 253	0 6 0 1077	0 0 0 1243	0
Growth Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 253	0 6 0 1077	0 0 0 1243	0
Added Vol:	0 0 0 0	0 0 0 0	0 0 0 1	0 0 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	0 0 0 253	0 6 0 1077	0 0 0 1244	0
User Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95
PHF Volume:	0 0 0 266	0 6 0 1134	0 0 0 1309	0
Reducet Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	0 0 0 266	0 6 0 1134	0 0 0 1309	0
PCE Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
FinalVolume:	0 0 0 266	0 6 0 1247	0 0 0 1440	0

---

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900	1900 1900 1900 1900	1900 1900 1900 1900	1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.86	1.00 1.00 1.00 0.86	1.00 1.00 1.00 0.86	1.00 1.00 1.00 0.86
Lanes:	0.00 0.00 0.00 0.98	0.00 0.02 0.00 0.98	0.00 0.00 0.00 0.98	0.00 0.00 0.00 0.98
Final Sat.:	0 0 0 1587	0 38 0 5700	0 0 0 5700	0 0 0 5700

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Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00 0.17	0.00 0.17 0.00 0.17	0.00 0.22 0.00 0.00	0.25 0.00 0.00 0.00
Crit Moves:	****	****	****	****
Green/Cycle:	0.00 0.00 0.00 0.38	0.00 0.38 0.00 0.38	0.00 0.57 0.00 0.00	0.57 0.00 0.00 0.00
Volume/Cap:	0.00 0.00 0.00 0.44	0.00 0.44 0.00 0.44	0.00 0.38 0.00 0.00	0.44 0.00 0.00 0.00
Uniform Del:	0.0 0.0 0.0 21.1	0.0 21.1 0.0 21.1	0.0 10.7 0.0 0.0	0.0 11.2 0.0 0.0
IncremntDel:	0.0 0.0 0.0 0.3	0.0 0.3 0.0 0.3	0.0 0.0 0.0 0.0	0.0 0.1 0.0 0.0
Delay Adj:	0.00 0.00 0.00 0.85	0.00 0.85 0.00 0.85	0.00 0.00 0.00 0.85	0.00 0.00 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 18.3	0.0 18.3 0.0 18.3	0.0 9.2 0.0 0.0	0.0 9.6 0.0 0.0
User DelAdj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 18.3	0.0 18.3 0.0 18.3	0.0 9.2 0.0 0.0	0.0 9.6 0.0 0.0
DesignQueue:	0 0 0 12	0 12 0 13	0 0 0 15	0 0 0 15

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #2

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Cycle (sec): 120 Critical Vol./Cap.(X): 0.812  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 22.4  
Optimal Cycle: 75 Level Of Service: C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Protected	Protected
Rights:	Ignore	Include	Include	Ignore
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 1 0	0 0 0 1	0 0 1 0	0 0 2 0

---

Volume Module:

Base Vol:	10 437 1027	0 0 0 854	463 0 0 1308	250
Growth Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	10 437 1027	0 0 0 854	463 0 0 1308	250
Added Vol:	0 0 0 1	0 0 0 0	0 0 0 0	0 1 0 0
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Initial Fut:	10 437 1028	0 0 0 854	463 0 0 1309	250
User Adj:	1.00 1.00 1.00 0.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 0.00
PHF Adj:	0.97 0.97 0.97 0.00	0.97 0.97 0.97 0.97	0.97 0.97 0.97 0.97	0.97 0.97 0.97 0.00
PHF Volume:	10 451 0	0 0 0 880	477 0 0 1349	0
Reducet Vol:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Reduced Vol:	10 451 0	0 0 0 880	477 0 0 1349	0
PCE Adj:	1.00 1.00 1.00 0.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 0.00
MLF Adj:	1.05 1.05 0.00 1.00	1.00 1.00 1.00 1.00	1.00 1.03 1.00 1.00	1.00 1.00 1.05 0.00
FinalVolume:	11 473 0	0 0 0 907	477 0 0 1417	0

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Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900	1900 1900 1900 1900	1900 1900 1900 1900	1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Lanes:	0.04 1.96 1.00 0.00	0.00 0.00 0.00 0.00	2.00 1.00 0.00 0.00	2.00 2.00 1.00 0.00
Final Sat.:	85 3715 1900	0 0 0 3610	1900 0 0 3800	1900

---

Capacity Analysis Module:

Vol/Sat:	0.13 0.13 0.00 0.00	0.00 0.00 0.00 0.00	0.25 0.25 0.00 0.00	0.37 0.00
Crit Moves:	****	****	****	****
Green/Cycle:	0.16 0.16 0.00 0.38	0.00 0.38 0.00 0.57	0.00 0.57 0.00 0.00	0.46 0.00
Volume/Cap:	0.81 0.81 0.00 0.44	0.00 0.44 0.00 0.38	0.00 0.00 0.81 0.33	0.00 0.00 0.81 0.00
Uniform Del:	37.2 37.2 0.0 21.1	0.0 21.1 0.0 10.7	0.0 0.0 29.1 3.3	0.0 0.0 0.0 21.3
IncremntDel:	5.8 5.8 0.0 0.3	0.0 0.3 0.0 0.0	0.0 0.0 3.3 0.0	0.0 0.0 0.0 2.2
Delay Adj:	0.85 0.85 0.00 0.85	0.00 0.85 0.00 0.85	0.00 0.85 0.00 0.00	0.85 0.00
Delay/Veh:	37.4 37.4 0.0 18.3	0.0 18.3 0.0 9.2	0.0 0.0 28.0 2.8	0.0 0.0 0.0 20.2
User DelAdj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
AdjDel/Veh:	37.4 37.4 0.0 18.3	0.0 18.3 0.0 9.2	0.0 0.0 28.0 2.8	0.0 0.0 0.0 20.2
DesignQueue:	14 14 0 12	0 12 0 13	0 0 22 8	0 0 0 28

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Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3

Cycle (sec): 100 Critical Vol./Cap.(X): 0.706  
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 19.4  
Optimal Cycle: 60 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 2 0 1! 0 0 1 0 1 0 1 2 0 2 0 1 1 0 2 1 0

Volume Module:

Base Vol:	67	21	0	10	4	400	352	1076	30	13	1119	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	67	21	0	10	4	400	352	1076	30	13	1119	18
Added Vol:	0	0	0	0	0	0	0	1	0	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	67	21	0	10	4	400	352	1077	30	13	1120	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.00	0.94	0.94	0.94
PHF Volume:	71	22	0	11	4	426	374	1146	0	14	1191	19
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	71	22	0	11	4	426	374	1146	0	14	1191	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.10	1.00	1.00	1.00	1.00	1.00	1.03	1.05	0.00	1.00	1.10	1.10
FinalVolume:	78	22	0	11	4	426	386	1203	0	14	1311	21

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.96	0.96	0.96	0.96	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.54	0.46	0.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.95	0.05	1.00
Final Sat.:	4631	841	0	1805	1900	1615	3610	3800	1900	1805	5610	90	1.00

Capacity Analysis Module:

Vol/Sat:	0.02	0.03	0.00	0.01	0.00	0.26	0.11	0.32	0.00	0.01	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.02	0.33	0.00	0.07	0.37	0.37	0.15	0.47	0.00	0.01	0.33	0.33
Volume/Cap:	0.71	0.08	0.00	0.08	0.01	0.71	0.71	0.67	0.00	0.67	0.71	0.71
Uniform Del:	36.8	17.8	0.0	32.9	15.0	20.3	30.6	15.6	0.0	37.4	22.2	22.2
IncremntDel:	9.7	0.0	0.0	0.0	0.0	2.6	2.9	0.7	0.0	36.4	0.9	0.9
Delay Adj:	0.85	0.85	0.00	0.85	0.85	0.85	0.85	0.85	0.00	0.85	0.85	0.85
Delay/Veh:	41.0	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.2	19.7	19.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.0	15.1	0.0	28.0	12.7	19.8	28.9	13.9	0.0	68.2	19.7	19.7
DesignQueue:	2	2	0	1	0	16	9	19	0	1	18	18

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

Intersection #4

Cycle (sec): 120 Critical Vol./Cap.(X): 0.461  
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 11.9  
Optimal Cycle: 32 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 0 0 0 0 0 0 1 0 0 0 0 1 1 0 2 0 0 0 0 0 2 1 0

Volume Module:

Base Vol:	0	0	0	71	0	147	173	917	0	0	1005	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	71	0	147	173	917	0	0	1005	71
Added Vol:	0	0	0	0	0	0	0	1	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	71	0	147	173	918	0	0	1006	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	0	0	0	76	0	158	186	987	0	0	1082	76
Reducit Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	76	0	158	186	987	0	0	1082	76
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	76	0	158	186	1036	0	0	1190	84

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00	0.99	0.99
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.80	0.20
Final Sat.:	0	0	0	1805	0	1615	1805	3800	0	0	5271	372

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.10	0.10	0.27	0.00	0.00	0.23	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.00	0.00	0.00	0.21	0.00	0.21	0.22	0.71	0.00	0.00	0.49	0.49
Volume/Cap:	0.00	0.00	0.00	0.20	0.00	0.46	0.46	0.38	0.00	0.00	0.46	0.46
Uniform Del:	0.0	0.0	0.0	29.6	0.0	31.4	30.7	5.2	0.0	0.0	15.4	15.4
IncremntDel:	0.0	0.0	0.0	0.0	0.0	0.7	0.6	0.0	0.0	0.0	0.1	0.1
Delay Adj:	0.00	0.00	0.00	0.85	0.00	0.85	0.85	0.85	0.00	0.00	0.85	0.85
Delay/Veh:	0.0	0.0	0.0	25.2	0.0	27.4	26.7	4.4	0.0	0.0	13.1	13.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	25.2	0.0	27.4	26.7	4.4	0.0	0.0	13.1	13.1
DesignQueue:	0	0	0	4	0	8	10	11	0	0	15	15

Note: Queue reported is the number of cars per lane.

-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5  
 \*\*\*\*\*  
 Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[119.9]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Ignore Include Include Include  
 Lanes: 1 0 0 0 1 0 0 0 0 0 0 1 0 1 1 0 1 0 0  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 16 0 4 0 0 0 0 968 17 11 1032 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 16 0 4 0 0 0 0 968 17 11 1032 0  
 Added Vol: 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 16 0 4 0 0 0 0 969 17 11 1033 0  
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
 PHF Volume: 18 0 0 0 0 0 0 1065 19 12 1135 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 18 0 0 0 0 0 0 1065 19 12 1135 0  
 Critical Gap Module:  
 Critical Gp: 6.4 xxxx 6.2 xxxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
 FollowUpTim: 3.5 xxxx 3.3 xxxxx xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: 2224 xxxx 1065 xxxx xxxx xxxx xxxx xxxx xxxx 1084 xxxx xxxx  
 Potent Cap.: 48 xxxx 273 xxxx xxxx xxxx xxxx xxxx 651 xxxx xxxx  
 Move Cap.: 48 xxxx 273 xxxx xxxx xxxx xxxx xxxx 651 xxxx xxxx  
 Volume/Cap: 0.37 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: 1.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
 Control Del: 119.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 10.6 xxxx xxxx  
 LOS by Move: F \* \* \* \* \* \* \* \* B \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue: xxxx  
 Shrd ConDel: xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: 119.9 xxxxxx xxxx xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #6  
 \*\*\*\*\*  
 Average Delay (sec/veh): 5.8 Worst Case Level Of Service: F[323.1]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Ignore Include Include  
 Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 0 0 0 0 30 0 183 135 760 0 0 965 70  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 0 0 0 30 0 183 135 760 0 0 965 70  
 Added Vol: 0 0 0 0 0 0 0 0 1 0 0 1 0 0 1 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 0 0 0 30 0 183 135 761 0 0 966 70  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87  
 PHF Volume: 0 0 0 0 34 0 0 155 875 0 0 1110 80  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 0 0 0 34 0 0 155 875 0 0 1110 80  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
 FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 2295 xxxx 1110 1191 xxxx xxxx xxxx xxxx xxxx  
 Potent Cap.: xxxx xxxx xxxx 43 xxxx 257 593 xxxx xxxx xxxx xxxx xxxx  
 Move Cap.: xxxx xxxx xxxx 35 xxxx 257 593 xxxx xxxx xxxx xxxx xxxx  
 Volume/Cap: xxxx xxxx xxxx 0.99 xxxx 0.00 0.26 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx 3.6 xxxx xxxx 1.0 xxxx xxxx xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx 323.1 xxxx xxxx 13.2 xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: \* \* \* \* F \* \* \* B \* \* \* \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: xxxxxx 323.1 xxxx xxxx xxxx  
 ApproachLOS: F \* \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
1994 HCM Operations Method (Future Volume Alternative)

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Intersection #7

---

Cycle (sec): 60 Critical Vol./Cap.(X): 0.339  
Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 6.5  
Optimal Cycle: 21 Level Of Service: B

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 1	0 0 0 1	0 0 0 0
Lanes:	0 0 0 0	0 1 0 1	0 0 0 1	0 0 0 0

---

Volume Module:

Base Vol:	0 0 0 152 1 65 0 90 117 53 83 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 152 1 65 0 90 117 53 83 0
Added Vol:	0 0 0 0 0 3 0 4 12 0 7 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 152 1 68 0 94 129 53 90 0
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78
PHF Volume:	0 0 0 195 1 87 0 121 165 68 115 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	0 0 0 195 1 87 0 121 165 68 115 0
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	0 0 0 195 1 87 0 121 165 68 115 0

---

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	1.00 1.00 1.00 0.85 0.85 1.00 0.82 0.82 0.74 0.74 1.00
Lanes:	0.00 0.00 0.00 0.99 0.01 1.00 0.00 0.42 0.58 0.37 0.63 0.00
Final Sat.:	0 0 0 1604 11 1615 0 657 901 521 885 0

---

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00 0.12 0.12 0.05 0.00 0.18 0.18 0.13 0.13 0.00
Crit Moves:	**** ****
Green/Cycle:	0.00 0.00 0.00 0.36 0.36 0.36 0.00 0.54 0.54 0.54 0.54 0.00
Volume/Cap:	0.00 0.00 0.00 0.34 0.34 0.15 0.00 0.34 0.34 0.24 0.24 0.00
Uniform Del:	0.0 0.0 0.0 10.7 10.7 9.9 0.0 5.9 5.9 5.5 5.5 0.0
IncremntDel:	0.0 0.0 0.0 0.1 0.1 0.0 0.0 0.1 0.1 0.0 0.0 0.0
Delay Adj:	0.0 0.0 0.0 0.85 0.85 0.85 0.00 0.85 0.85 0.85 0.85 0.00
Delay/Veh:	0.0 0.0 0.0 9.2 9.2 8.4 0.0 5.1 5.1 4.7 4.7 0.0
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	0.0 0.0 0.0 9.2 9.2 8.4 0.0 5.1 5.1 4.7 4.7 0.0
DesignQueue:	0 0 0 4 4 2 0 5 5 3 3 0

---

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM 4-Way Stop Method (Future Volume Alternative)

---

Intersection #8

---

Cycle (sec): 100 Critical Vol./Cap.(X): 0.513  
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 11.1  
Optimal Cycle: 0 Level Of Service: B

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
Lanes:	0 1 0 0	0 0 0 0	1 0 0 0	0 0 0 0

---

Volume Module:

Base Vol:	50 101 0 0 0 103 261 0 0 0 0 0 0
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	50 101 0 0 0 103 261 0 0 0 0 0 0
Added Vol:	7 0 0 0 0 0 0 0 0 4 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	57 101 0 0 0 103 265 0 0 0 0 0 0
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73 0.73
PHF Volume:	78 138 0 0 0 141 363 0 0 0 0 0 0
Reducet Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	78 138 0 0 0 141 363 0 0 0 0 0 0
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	78 138 0 0 0 141 363 0 0 0 0 0 0

---

Saturation Flow Module:

Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.36 0.64 0.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.:	244 433 0 0 0 745 708 0 0 0 0 0 0

---

Capacity Analysis Module:

Vol/Sat:	0.32 0.32 xxxx xxxx xxxx 0.19 0.51 xxxx xxxx xxxx xxxx
Crit Moves:	**** ****
Delay/Veh:	10.3 10.3 0.0 0.0 0.0 8.5 12.7 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	10.3 10.3 0.0 0.0 0.0 8.5 12.7 0.0 0.0 0.0 0.0 0.0 0.0
LOS by Move:	B B * * * A B * * * * *
ApproachDel:	10.3 8.5 12.7 xxxxxxxx
Delay Adj:	1.00 1.00
ApprAdjDel:	10.3 8.5 12.7 xxxxxxxx
LOS by Appr:	B A B *
AllWayAvg:	0.4 0.4 0.4 0.2 0.2 0.2 0.9 0.9 0.9 0.9 0.0 0.0 0.0

---

Note: Queue reported is the number of cars per lane.

**Construction Project Limits  
AM and PM Peak Hours**

am const

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CHSC EIR  
Construction Limits  
AM Inbound peak hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 5.4 Worst Case Level Of Service: F[1633.8]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 1 1 0 0  
-----|-----|-----|-----|  
Volume Module:  
Base Vol: 5 0 4 0 0 0 0 1101 12 13 1453 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 5 0 4 0 0 0 0 1101 12 13 1453 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Const Vol: 0 0 0 0 0 0 0 0 375 0 0  
Initial Fut: 5 0 4 0 0 0 0 1101 12 388 1453 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.98 0.98 0.00 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98  
PHF Volume: 5 0 0 0 0 0 0 1123 12 396 1483 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 5 0 0 0 0 0 0 1123 12 396 1483 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
-----|-----|-----|-----|  
Capacity Module:  
Conflict Vol: 3398 xxxx 1123 xxxx xxxx xxxx xxxx xxxx 1136 xxxx xxxx  
Potent Cap.: 8 xxxx 252 xxxx xxxx xxxx xxxx xxxx 623 xxxx xxxx  
Move Cap.: 4 xxxx 252 xxxx xxxx xxxx xxxx xxxx 623 xxxx xxxx  
Volume/Cap: 1.24 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.64 xxxx xxxx  
-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 1.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 4.5 xxxx xxxx  
Control Del: 1634 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 20.3 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* C \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 1633.8 xxxx xxxx xxxx xxxx  
ApproachLOS: F \* \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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am const

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CHSC EIR  
Construction Limits  
AM Inbound peak hour

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 9.0 Worst Case Level Of Service: F[901.3]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 29 0 196 70 979 0 0 1251 359  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 29 0 196 70 979 0 0 1251 359  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Const Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 0 0 29 0 196 70 979 0 0 1651 359  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98  
PHF Volume: 0 0 0 30 0 0 71 999 0 0 1685 366  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 30 0 0 71 999 0 0 1685 366  
Critical Gap Module:  
Critical Gp:xxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|  
Capacity Module:  
Conflict Vol: xxxx xxxx xxxx 2827 xxxx 1685 2051 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 20 xxxx 118 278 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 16 xxxx 118 278 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 1.86 xxxx 0.00 0.26 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 4.3 xxxx xxxx 1.0 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxx xxxx xxxx 901.3 xxxx xxxx 22.4 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* C \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxx 901.3 xxxx xxxx  
ApproachLOS: \* F \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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pm const

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CHSC EIR  
Construction limits  
Outbound trips added

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #5  
\*\*\*\*\*  
Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[447.1]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Ignore Include Include Include  
Lanes: 1 0 0 0 1 0 0 0 0 0 1 0 1 1 0 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 11 0 8 0 0 0 0 1460 5 7 1211 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 11 0 8 0 0 0 0 1460 5 7 1211 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Const Vol: 0 0 400 0 0 0 0 0 0 0 0 0  
Initial Fut: 11 0 408 0 0 0 0 1460 5 7 1211 0  
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.91 0.91 0.00 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
PHF Volume: 12 0 0 0 0 0 0 1604 5 8 1331 0  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 12 0 0 0 0 0 0 1604 5 8 1331 0  
Critical Gap Module:  
Critical Gp: 6.4 xxxx 6.2 xxxx xxxx xxxx xxxx xxxx 4.1 xxxx xxxx  
FollowUpTim: 3.5 xxxx 3.3 xxxx xxxx xxxx xxxx xxxx 2.2 xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Module:  
Conflict Vol: 2951 xxxx 1604 xxxx xxxx xxxx xxxx xxxx 1610 xxxx xxxx  
Potent Cap.: 16 xxxx 131 xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx  
Move Cap.: 16 xxxx 131 xxxx xxxx xxxx xxxx xxxx 411 xxxx xxxx  
Volume/Cap: 0.74 xxxx 0.00 xxxx xxxx xxxx xxxx xxxx 0.02 xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: 1.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx xxxx  
Control Del: 447.1 xxxx xxxx xxxx xxxx xxxx xxxx 13.9 xxxx xxxx  
LOS by Move: F \* \* \* \* \* \* \* B \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx  
Shrd ConDel:xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: 447.1 xxxx xxxx xxxx xxxx  
ApproachLOS: F \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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pm const

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CHSC EIR  
Construction limits  
Outbound trips added

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*  
Average Delay (sec/veh): 47.2 Worst Case Level Of Service: F[3466.1]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Ignore Include Include  
Lanes: 0 0 0 0 1 0 0 0 1 1 0 1 0 0 0 0 1 0 1  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 40 0 105 193 1368 0 0 1021 328  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 40 0 105 193 1368 0 0 1021 328  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Const Vol: 0 0 0 0 0 0 0 0 0 0 74 0 0 0 0  
Initial Fut: 0 0 0 40 0 105 193 1442 0 0 1021 328  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.00 0.89 0.89 0.89 0.89  
PHF Volume: 0 0 0 45 0 0 217 1620 0 0 1147 369  
Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 0 0 0 45 0 0 217 1620 0 0 1147 369  
Critical Gap Module:  
Critical Gp:xxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Module:  
Conflict Vol: xxxx xxxx xxxx 3201 xxxx 1147 1516 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 11 xxxx 244 447 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 7 xxxx 244 447 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 6.43 xxxx 0.00 0.49 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 7.1 xxxx xxxx 2.6 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxx xxxx xxxx 3466 xxxx xxxx 20.4 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* F \* \* C \* \* \* \* \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
ApproachDel: xxxx 3466.1 xxxx xxxx  
ApproachLOS: \* F \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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SQSP CHSC TIA  
Construction Mitigation Analysis  
PM Peak Hour: Sir Francis Drake and Andersen Drive

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #6  
\*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:		Protected			Protected			Prot+Permit		Prot+Permit						
Rights:		Include			Ignore			Include		Include						
Min. Green:	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	1	0	0	1	1	0	1	0	0	0	1	0
Volume Module:																
Base Vol:	0	0	0	40	0	105	193	1368	0	0	1021	328				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	0	0	0	40	0	105	193	1368	0	0	1021	328				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	90	0	0	0	0				
Initial Fut:	0	0	0	40	0	105	193	1458	0	0	1021	328				
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.00	0.89	0.89	0.89	0.89	0.89	0.89				
PHF Volume:	0	0	0	45	0	0	217	1638	0	0	1147	369				
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	45	0	0	217	1638	0	0	1147	369				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	0	0	0	45	0	0	217	1638	0	0	1147	369				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00				
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00				
Final Sat.:	0	0	0	1805	0	1900	1805	1900	0	0	1900	1615				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.00	0.12	0.86	0.00	0.00	0.60	0.23				
Crit Moves:				****			****				****					
Green/Cycle:	0.00	0.00	0.00	0.04	0.00	0.00	0.88	0.83	0.00	0.00	0.70	0.70				
Volume/Cap:	0.00	0.00	0.00	0.60	0.00	0.00	0.62	1.03	0.00	0.00	0.87	0.33				
Delay/Veh:	0.0	0.0	0.0	69.0	0.0	0.0	36.8	42.1	0.0	0.0	20.5	7.4				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	0.0	0.0	0.0	69.0	0.0	0.0	36.8	42.1	0.0	0.0	20.5	7.4				
LOS by Move:	A	A	A	E	A	A	D	D	A	A	C	A				
HCM2kAvgQ:	0	0	0	3	0	0	3	73	0	0	35	5				

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.